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VOCATIONAL EDUCATION

Montana VIEW/Guidance
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Apprentice Education
Trade & Industry
Technical Education
Job Training Partnership Act



Ed Argenbright
Superintendent

Business & Office Education
Consumer & Homemaking
Education
Wage Earning Home
Economics Education
Cooperative Education
Distributive Education
Special Needs Programs
Health Occupation Education

Montana

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Office of Public Instruction
Fiscal Year 1983
Accountability Report

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SECTION I

INTRODUCTION AND COORDINATION

Introduction

The Department of Vocational Education Services wishes to express its appreciation to the Montana Vocational Education Planning Council. The Council met four times to plan and review the 1985 Montana State Plan and the 1983 Montana Accountability Report. The final meeting involved a public hearing utilizing a telephone conference system with eight Montana communities. The primary advantage of the system is that individuals in a sparsely populated state have more opportunity to participate. Council members served as moderators and facilitators at the eight sites.

Appreciation is expressed to the contributions of the Montana Advisory Council for Vocational Education which are noted in the publication. Helena High School District No. 1 supplied student and employer follow-up information which was appreciated.

Results of VEA and CETA Coordination

The Montana Comprehensive Employment and Training Act (CETA) program is divided into two delivery areas. The largest area comprises 50 of the 56 counties and is referred to as the "Balance of State" with the Governor as the prime sponsor. The other area comprises the counties of Lewis and Clark, Broadwater, Jefferson, Deer Lodge, Madison and Silver Bow and is referred to as the CETA/CEP with the county commissioners as the prime sponsor. Administratively, both areas work through the Montana Department of Labor and Industry; consequently, coordination is assured.

The Department of Vocational Education Services received Title IIB funds and 6 percent Vocational Education set-aside funds. The Montana Department of Labor and Industry reduced the amount to about 4½ percent for the Balance of State. A predetermined portion of the 6 percent funds were expended in the CETA/CEP area in compliance with federal rules and regulations. Only adult programs were operated by the Department of Vocational Education Services in fiscal year 1983 because of reduced funding.

Six percent funds and Title IIB funds were used to operate World of Work (see Appendix C) and Adult Basic Education programs. A small portion was used for curricula and equipment updating.

Coordination between VEA (Vocational Education Act) and CETA was facilitated by dual membership on committees and formal letters of agreement. The Assistant Superintendent for Vocational Education Services, Gene Christiaansen, served on the Balance of State Private Industry Council. The Department of Labor and Industry is represented on the Montana Vocational Education Planning Council by Wendy Keating, Manager of Billings Job Service Office, West. She also is a member of the Montana Advisory Council for Vocational Education.

The Department of Vocational Education Services and the Department of Labor and Industry jointly sponsored a management workshop for operators of CETA programs. The June 1983 workshop was well-attended with 30 participants at the Butte location.

The Department of Vocational Education Services provided supplemental VEA funding to both the Balance of State and CETA/CEP Displaced Homemaker Programs. In addition, these programs received technical assistance and training from the Human Potential Development Specialist. CETA enrollees were able to benefit from a VEA Special Needs project conducted at the Helena Industries.

Administrative costs of the CETA programs operated by the Department of Vocational Education Services were reduced by a staff member assuming management responsibilities. The Executive Assistant, Jim Whealon, coordinated the activities of 10 programs during a portion of fiscal year 1983.

The coordination of the programs operated through the Department of Vocational Education Services was complex, especially in the later months of the fiscal year. This was the transitional time between CETA and Job Training and Partnership Act (JTPA) laws. A serious problem of the transitional period related to the possible carry-over of CETA funds to JTPA funds. The programs operated through the CETA expended 93 percent of the planned expenditures.

During the transition period, coordination was established for the next fiscal year between VEA and Job Training Partnership Act. On March 30, 1983, the Assistant Superintendent for Vocational Education Services was appointed to the state "Job Training Coordinating Council." The Butte Vocational-Technical Center Director was appointed to the CEP Private Industry Council which would serve ten counties instead of the CETA/CEP six counties.

Equal Access

The Department of Vocational Education Services and other departments within the Office of Public Instruction strive to provide equal access to vocational and other school programs. Vocational Education Services has three activities to check the compliance with the equal access requirements. The activities for school year 1982-83 were: 1) on-site evaluation of 24 schools using the instrument "An Evaluation for Vocational Education Programs in Montana" (VZ3082), 2) a desk audit of 24 LEA's and others (n = 4) in compliance with "Methods of Administration," 3) a follow-up of nine on-site evaluations based on the results of the desk audits.

The regular on-site evaluation of 24 secondary schools found general compliance with equal access requirements. Deficiencies noted were included in the written report to the schools. Those schools not responding to the correction of the deficiency could lose their excess cost state funding.

The following are selected items from the regular on-site evaluation instrument:

<u>Statement</u>	<u>No. of Schools with Deficiency</u>
Are provisions made to ensure equal access to all programs regardless of sex, race, handicap, disadvantage, religion, national origin, etc.?	4
Do facilities and equipment accommodate students regardless of sex, handicap or disadvantage?	2
Do provisions for vocational guidance and counseling activities meet the needs of students and teachers regardless of sex?	4
Do programs prepare students for entry into non-traditional programs?	1

From the 28 desk audits, nine were selected for on-site evaluations using the "Methods of Administration" (MOA) criteria. The findings were that two of the institutions failed to properly publicize the name of the Title IX Coordinator; one school had scheduling problems which would limit equal access to vocational classes; one school had disproportionate number of females in home economics and disproportionate number of males in vocational agriculture; one school board did not have grievance procedures that addressed equal access.

None of the equal access findings identified by the MOA warranted referral to the Office of Civil Rights. Each institution with equal access problems received a letter from the OCR Specialist. The letter also recommended procedures to correct the equal access deficiency. The institutions receiving the notice of equal access deficiency had 90 days to report their plan to correct the deficiency.

The Gifted and Talented Specialist organized an "Expanding Your Horizons" workshop in April 1983. The workshop gave the 227 participants information on nontraditional programs available to women. The featured presenter was Dr. Carolyn Huntoon from the National Aeronautics and Space Administration.

The SEE Institute (Striving for Equity in Education) at Rocky Mountain College is funded through a federal grant from the Office of Public Instruction. Their contract is to provide Montana school districts with sex equity training and technical assistance in those areas which will improve their ability to offer unbiased educational opportunities to all students.

Results of Local Advisory Councils

In fiscal year 1983, 24 secondary schools received the regular on-site evaluation. The evaluative instrument, "An Evaluation for Vocational Education Programs in Montana" (VZ3082), was used at each site. Two statements on the instrument related to advisory councils. The statements and the number of schools with the deficiency follow:

No. of Schools
with Deficiency
5

Statement

Are advisory committees functioning and being utilized effectively?

Does the program evaluation have broad-based involvement (advisory committee, administration, teachers, students)?

9

At the time of the exit interview at the school site, school administrators, board members and others are told of the advisory committee problems. It is strongly recommended that the schools avail themselves of the services of the Montana Advisory Council for Vocational Education. The school is sent written information on the advisory committee deficiency. The school must provide evidence that the deficiency has been corrected or they may lose their state excess cost funds.

In the spring of 1983, the Montana Advisory Council for Vocational Education mailed a one-page survey to vocational teachers in Montana. Some of the survey results were published in the 14th Annual Report of the Montana Advisory Council for Vocational Education (page 16). The Council's executive director made the unpublished findings on the 161 usable survey returns available to the Department of Vocational Education Services.

There were 143 survey instruments (89 percent) that contained information on the number of local advisory committee meetings. On the average, the advisory committees met two times per year. The rank order of the three most frequent activities of the advisory committees was: 1) to assist with the plan for promoting positive school and community relations, 2) to review physical facilities and advise on equipment purchase, and 3) to discuss changing skills and knowledge needed in business.

SECTION II

ACHIEVEMENT

The specific program objectives for Montana vocational education are listed in the Montana State Plan for Vocational Education 1983-87. The equivalent to the 1983 state annual plan is contained in the 1983-87 plan. This report paraphrases the objectives.

Objectives

Results

Agriculture

1. Conduct on-site vocational agriculture evaluations and provide technical assistance where needed.

Seven schools received evaluations, namely, Cascade, Deer Lodge, Dillon, Livingston, Polson, Twin Bridges and Ronan.

2. Follow up on secondary on-site evaluations from previous years and check the progress of agricultural programs in the vocational-technical centers.

Five schools provided information on corrections of deficiencies from previous year. The centers provided the office with 11-page program self-evaluations which were reviewed.

3. Increase the first-year teacher retention through directed inservice training.

In fiscal year 1982, 80% signed a renewal contract. In FY 1983, all 7 (100%) signed renewal teaching contracts.

4. Improve program quality and provide inservice training.

Fifty-five vocational agriculture teachers participated in a week-long update workshop. In addition, there was a travel seminar to 11 vo-ag programs and two agricultural experiment stations. Billings, Wolf Point, Lewistown and Cascade were sites for workshops on microcomputers.

5. Administer the Montana Association of Future Farmers of America and maintain membership at 2,100. Increase the number of 1982 state award applications (161).

Fiscal year 1983 had 2,053 FFA members. There were 165 state award applicants.

6. Revise and update the vocational agriculture core curriculum and five curriculum resource units.

Montana State University completed all the objectives and the materials were distributed to all vo-ag teachers.

7. Increase the number of approved programs (70) by adding one new program and upgrading one non-approved program.

The objectives were attained--a new program is located at Stanford and an upgraded program at Lodge Grass. In addition, two of the 70 programs were removed from probationary status.

8. Collect and interpret student and employer follow-up information.

A one-third sample was mailed to students and their employers. Poor results were obtained; thus interpretation was not completed.

Distributive Education

1. Rewrite and update Distributive Education Secondary Guidelines.

The objective was accomplished and will be published in the Administrative Rules of Montana.

2. Computer assisted instruction will be infused into the distributive education curriculum guidelines.

The computer assisted instruction unit will be incorporated in the distributive education program.

3. Evaluate 20% of the distributive education programs in fiscal year 1983.

The criterion was exceeded since 35% received on-site evaluations.

4. Conduct inservice on computer assisted instruction for distributive education teachers.

Eighty percent of the DE teacher coordinators received inservice training.

5. Plan, organize and coordinate five DECA (Distributive Education Clubs of America) conference and workshops.

The objective was accomplished, namely, DECA Board of Governors, State Officer workshop, Western Regional DECA, State DECA and National DECA conferences. There was a total of 544 participants.

6. Develop a promotional brochure for postsecondary programs in Montana.

The brochure was produced and a supply was made available to the 25 distributive education program instructors and guidance counselors at the secondary and postsecondary levels.

Health Occupations

1. Provide technical assistance to postsecondary health occupations programs.

The specialist attended four state Board of Nursing meetings. Pertinent information was distributed to the practical nursing programs. Technical assistance was given to the Great Falls Vocational-Technical Center Respiratory Therapy Technician program. This permitted mutual collaboration with a private college to establish a two-year program, thus helping students by providing a ladder concept for the technician graduate. Assistance was given to develop an intravenous curriculum for licensed practical nurses. The specialist reviewed the self-evaluations of seven postsecondary health occupations programs.

2. Promote health exploratory programs within secondary schools.

Lack of funds and staff prevented the attainment of this objective.

Consumer Homemaking

1. Conduct 17 on-site consumer homemaking program evaluations.

This objective was exceeded with 21 schools being visited.

2. Expand, enrich and improve secondary consumer homemaking programs.

Curriculum development was stressed at 13 home economics professional meetings during the on-site evaluations. Preservice activities were provided at two universities.

3. Provide a variety of inservice activities for professional development.

A model was developed for supporting statewide curriculum and program implementation. This provided a coordinating link of teachers. Eight workshops were provided at the state vocational conferences on topics such as computer education in home economics, vocational funding, vocational education administration, role and scope of advisory committees and others.

4. Plan, organize and direct leadership activities for Future Homemakers of America members.

Statewide there were 11 district FHA/HERO meetings. State leadership conference served about 800 persons.

5. Develop a consumer and homemaking education program promotion kit for dissemination.

A lack of funds prevented the attainment of this objective.

Wage Earning Home Economics

1. Conduct on-site evaluations at five sites having wage earning home economics.

Six programs were evaluated. This number represents 40% of the approved vocational wage earning home economics programs.

2. Expand, enrich and improve wage earning home economics programs and activities.

A curriculum development project for food service programs was developed and used to enhance the quality of wage earning home economics programs.

3. Provide a variety of inservice activities for professional development.

A model was developed and implemented for supporting statewide curriculum and program development.

4. Plan, organize and direct leadership activities for FHA/HERO members.

Eleven district FHA/HERO leadership meetings were conducted. The state leadership conference served about 800 persons. Statewide proficiency events were held for about 275 students.

Business and Office

1. Conduct 18 on-site business and office program evaluations.
2. Produce a list of business and office programs using computer and word/information processing hardware and software.
3. Organize, direct and supervise Montana Office Education Association (MOEA) activities.
4. Assist the articulation in the business and office programs.
5. The five vocational-technical centers will attempt to develop a standardized core of business and office curricula.

Vocational Guidance/Montana VIEW

1. Provide technical assistance in setting up two career assistance centers (CAC) in the vocational-technical centers.
2. Supply current occupational and training information to the secondary schools, vocational-technical centers and other publics.
3. Provide materials on job placement techniques and develop procedures to help students. Use student followup procedures.
4. Provide inservice and conduct workshops on how to use the career information center services and voca-

The objective was exceeded with 19 evaluations.

The list was made available in 1984. About 80% of the business and office programs are users.

Two state planning and training meetings were conducted plus two state leadership conferences. The lack of adequate meeting facilities necessitated two state conferences. A total of 400 teachers and students attended state leadership conferences.

A K-14 articulation plan is being developed.

Faculty from the five centers met four times to develop some degree of uniformity among courses with the same name.

Space for the centers has been allocated and initial planning completed. Implementation will be completed when funds are available.

Schools receive VIEW (Vital Information for Education and Work) which is a microfiche source of occupational information. A 138-page loose-leaf Directory of Montana Postsecondary Vocational-Technical Education was initiated. Distribution will be in FY 84. A computer disc with an interest inventory was made available to schools requesting the service.

The Department of Vocational Education Services in cooperation with SOICC (State Occupational Information Coordinating Committee) mailed job supply/demand information to all secondary and postsecondary counselors. The VEDS data provides student follow-up information.

Planning was completed on two separate workshops which will be held throughout the state in FY 84. One

tional guidance materials.

5. Promote articulation between local guidance services and the community.

Apprenticeship

1. Provide an equitable system for distribution of funding and other support to programs.

Trade and Industry

1. Initiate a curriculum project that is competency based for nine areas of trade and industrial education.

2. Make on-site program evaluations.

3. Upgrade the professional and technical skills of teachers.

4. Increase the participation of students and instructors in programs of the Vocational Industrial Clubs of America (VICA).

workshop will be held at six sites and the other at eleven.

The on-site school evaluations afford the opportunity to promote mutual cooperation.

A funding process was developed; however, a review of apprenticeship policies remains to be completed.

Funding limited the scope of the project. The project identified and obtained curricular materials. The materials were reviewed and suggestions were made for succeeding years. It was recommended that adoption/adaptation of existing competency materials be utilized.

Fourteen schools were visited with 30 industrial and 27 trade and industry programs being evaluated. Annual program approval procedures also afforded an opportunity to check programs for compliance.

In cooperation with Montana Industrial Education Association, seven workshops and three field trips were conducted for 45 teachers (about 10 percent of Montana's industrial education teachers) at the Montana Vocational Association meeting. Seven one-day meetings were held throughout the state in March 1983; meetings emphasized trends in curriculum and utilization of student organizations. Seven teacher center projects directly or indirectly served 251 (56 percent) industrial education teachers.

Six workshops on the integration of VICA programs were conducted for 72 participants. Visits, presentations and other contacts were made at 14 schools, resulting in the establishment of one new chapter. A successful fall 1983 conference provided training for 84 club officers and 16 advisors from 15 schools. The

state conference and skill olympics had 362 (67 percent of the membership) participants. With the various workshops and conferences, the state VICA officers and the VICA Board of Advisors took an active leadership role.

5. Respond to requests for technical assistance from the schools.

The specialist responded to requests from about 55 schools.

6. Promote quality vocational programs through cooperation with professional organizations and others involved in vocational education.

The specialist is an active member in professional organizations and is a board member of the Montana Industrial Education Association.

Human Potential Development

1. Evaluate the sex equity compliance in 18 schools.

The number of schools evaluated was exceeded.

2. Provide documentation and other assistance to the Office of Civil Rights (OCR) team.

Two Region VIII OCR representatives made an on-site evaluation in September 1982. The specialist gave the requested assistance.

3. Develop, print and distribute information on secondary and post-secondary enrollment information.

Enrollment information by sex was distributed in the 1982 Accountability Report.

4. Reprint 2,000 copies of the "Montana Directory" of nontraditional workers.

Six hundred copies were distributed at the Montana Vocational Association Leadership Conference, Education Fair and at the Displaced Homemaker Centers.

5. Reprint and distribute the publication Getting Hired in Montana.

A reprinting and distribution was made at the Montana Vocational Association Leadership Conference, various workshops, Education Fair and through the nine Displaced Homemaker Centers.

6. Present programs and materials.

Materials were distributed as previously stated. A statewide program was jointly sponsored by SEE Institute and the Office of Public Instruction. The program was titled "Striving for Educational Equity."

7. Review and update applications and vocational education forms to promote all aspects of gender-fair education.

Applications and other vocational education report forms were revised, clarified and made more effective. Gender data collection and program emphasis was maintained.

Program Enrollments

The secondary enrollment figures in Table II.1 are a duplicated count. That is, a student may take Agriculture Production and Secretarial; consequently, the person is counted twice in the table. It is believed that this is a more realistic figure to use, especially when doing a cost analysis. The rationale is that the student receives instructional services in each class. Past sampling indicates that about 29 percent are duplicates. Thus, an unduplicated count would be 25,160 times .71 or 17,864.

TABLE II.1

Montana School Year 1982-83 Secondary Vocational Enrollment		
<u>CIP</u>	<u>Program Name</u>	<u>Students (ANB)</u>
01.0301	Agriculture Production General	3,117
03.0401	Forestry Production & Processing	119
07.0705	General Office Clerk	3,380
07.0601	Secretarial	2,525
08.0799	General Marketing, Other	1,053
09.0701	Radio/Television Broadcasting	76
20.0101	Comprehensive Consumer & Homemaking	7,507
20.0201	Child Care & Guidance Management	148
20.0301	Clothing, Apparel & Textiles	47
20.0401	Food Production, Management & Services	134
21.0101	Occupational Oriented IA	1,047
21.0102	Carpentry/Construction	141
21.0103	Drafting	395
21.0104	Electricity/Electronics	94
21.0106	Graphic Communications	23
21.0107	Manufacturing/Materials Processing	1,581
21.0105	Energy, Power, Transportation	277
21.0199	Other, Including Combined Program	62
46.0201	Carpentry	541
47.0101	Electrical and Electronics	277
47.0603	Automotive Body Repair	59
47.0604	Automotive Mechanics	1,255
47.0606	Small Engine Repair	77
48.0101	Drafting General	485
48.0201	Graphic & Printing Communications	119
48.0501	Precision Metalwork General	198
48.0508	Welding	359
48.0999	Industrial Cooperative Training	64
	TOTAL	25,160

The postsecondary enrollment is shown in Table II.2 as Full Time Equivalents (FTE). This number differs from those reported in the fiscal year 1982 VEDS report which specifies the number of individuals. It is believed that the FTE count is a more stable statistic and is less subject to large changes in the number of part-time students.

TABLE II.2

Fiscal Year 1983 Montana Postsecondary Full Time Equivalents

<u>CIP</u>	<u>Program</u>	<u>Students</u>
01.0201	Agricultural Mechanics	71
03.0501	Forest Technology	36
06.1401	Mid Management	67
07.0101	Accounting/Bookkeeping	262
07.0301	Business Data Processing	81
07.0302	Data Entry/Computer Operator	17
07.0303	Data Entry Operator	150
07.0305	Computer Operator/Programmer	153
07.0604	Secretary Legal	106
07.0605	Secretary Medical	99
07.0606	Secretary General	107
07.0607	Secretary-Stenographer	14
07.0608	Word Processing	36
07.0699	Secretarial and Related	25
07.0702	Clerk Typist	73
07.0705	General Office	32
07.0707	Medical Receptionist	28
08.0102	Fashion Merchandising	20
08.0705	Retail Merchandising	11
15.0201	Civil Engineering Technology	17
15.0302	Electrical Technology	47
17.0101	Dental Assistant	51
17.0210	Respiratory Therapy	72
17.0211	Surgical Technology	31
17.0602	Nurse Assistant	54
17.0605	Practical Nurse	338
20.0401	Food Production	2
20.0401	Dinner/First Cook	89
32.0101	Skill Building	14
46.0201	Building Trades	48
47.0105	Industrial Electronics	216
47.0199	Consumer Electronics	23
47.0201	Air Conditioning/Refrigeration	64
49.0202	Heavy Equipment Operation	28
47.0302	Heavy Equipment Maintenance	49
47.0408	Watchmaking	13
47.0602	Aviation Mechanics	108
47.0603	Auto Body Repair	104
47.0604	Auto Mechanics	262
47.0605	Diesel Mechanics	59
47.0606	Small Engine	55
47.0699	Truck & Diesel Mechanics	43
48.0101	Drafting	77
48.0503	Machine Shop	64
48.0508	Welding Combination	236
	TOTAL	3,552

The fiscal year 1983 apprenticeship enrollment by program and other information is shown in Table II.3. The column "Hours" represents the number of hours of actual related instruction. The column "Planned" represents the estimate of cost when the 1983 plan was submitted. The column "Actual" represents what was spent in the program. Certified expenditure reports are on file with the Office of Public Instruction.

TABLE II.3
Montana Apprenticeship Programs for Fiscal Year 1983

<u>City/ CIP</u>	<u>Program</u>	<u>M</u>	<u>F</u>	<u>Hours</u>	<u>Planned Federal</u>	<u>Actual Federal</u>	<u>Match</u>
BILLINGS							
46.9999	Ironworkers	23	2	432	3456	3796.41	23241.59
46.0503	Plumbing & Pipefit	36	4	648	3456	3796.41	90986.21
46.0201	Carpentry	35	3	288	1152	2530.94	22257.43
46.0302	Electricians	34	2	432	3456	3796.41	34205.00
48.0506	Sheet Metal	19	0	288	1152	2530.94	44751.99
HELENA							
49.0202	Operator (Heavy Eq)	33	0	432	16128	3796.41	38445.18
46.0201	Carpentry	27	0	1476	11808	12971.08	37427.64
46.0302	Electricians	5	0	144	1152	1265.47	5937.00
GREAT FALLS							
48.0506	Sheet Metal	7	0	206	1648	1265.47	7560.47
46.0408	Painters	5	0	144	1152	1265.47	4423.98
46.0503	Plumb & Pipefitting	13	0	435	3456	3796.41	23889.06
48.0503	Machinists	4	0	53	720	465.76	1286.17
47.0302	Auto Mechanics	8	0	39	440	342.73	1132.90
47.0603	Auto Body	3	0	35	440	303.19	1769.17
46.0302	Electricians	5	0	144	1152	1265.47	10301.15
MISSOULA							
46.0302	Electricians	5	0	48	1152	421.82	7237.00
48.0506	Sheet Metal	4	0	120	1152	1054.56	1448.61
46.0503	Plumb & Pipefitting	15	0	165	1728	1265.47	2263.64
BUTTE							
48.0506	Machinist*	8	1	144	949	949.10	1075.00
48.0506	Sheet Metal	5	0	144	696	1265.47	1656.89
46.9999	Ironworkers	25	0	544	1152	2530.94	26424.33
46.0503	Plumb & Pipefit**	0	0	144	1152**	0.00	0.00
46.0302	Electricians*	9	0	144	1265	1265.47	4200.00
MILES CITY							
47.0501	Power Plant Oper	30	2	432	3456	3796.41	20306.84
47.9999	Power Plant Mech	11	1	432	3456	3796.41	13716.84
PABLO							
46.0201	Carpentry	6	0	144	1152	1265.47	32352.38
TOTALS		375	15		66926	60799.69	458296.47

*Added approvals

**Deleted

The professional staff members had the following secondary and postsecondary responsibilities. It is the goal that each specialist will devote about one-half time to secondary and one-half time to postsecondary.

Department of Vocational Education Services
Fiscal Year 1983

Gene Christiaansen	Assistant Superintendent
Alvin Chytka	Executive Assistant (9 months)
Jim Whealon	Executive Assistant (3 months)
Redina Berscheid	Marketing/Distributive/Co-op Education/DECA
Montez Briggs	Vocational Guidance Services/Montana VIEW (Vital Information for Education and Work)
Kay Burkhardt (7 mos.) Jim Whealon (5 mos.)	Human Potential Development
Barbara Crebo	Special Needs (Disadvantaged/Handicapped) Health Occupations Education
Leonard Lombardi	Agriculture Education/FFA
Mary Elizabeth McAulay	Consumer and Homemaking Education Wage Earning Home Economics (FHA/HERO)
Marion Reed	Business and Office/OEA
Robert Ruthemeyer	State Plan/Research/Reports
Jeff Wulf	Trade and Industrial Education Industrial Arts/VICA

TABLE II.4
Expenditures by Two-Digit Code--Secondary

<u>CIP Two-Digit Code</u>	<u>State and Local</u>	<u>Federal</u>
01 Agriculture	2,234,300	81,080.75
07 Business and Office	3,303,544	15,495.07
08 Marketing & Distribution	401,957	52,038.15
09 Communications	35,127	
20 Home Economics	3,001,112	110,982.25
21 Industrial Arts	1,498,291	26,245.50
46 Construction Trades	571,543	
47 Mechanics & Repairs	1,480,356	19,979.93
48 Precision Production	590,831	
	<u>13,117,061¹</u>	<u>305,821.65²</u>

¹Source: Vocational Education Secondary Fund Disbursement VE 34, 10/20/83.

²See Table III.2 for details.

TABLE II.4
Expenditures by Two-Digit Code--Postsecondary¹

<u>O.E. Two-Digit Code</u>	<u>State & Local</u>	<u>Federal</u>
Agriculture	267,670	26,001
Distributive	173,417	22,001
Health	763,204	81,004
Home Economics	144,196	16,001
Business and Office	1,520,389	154,007
Technical	406,889	41,002
Trades & Industry	1,792,803	256,002
Related Instruction	207,330	29,001
Multi-media, Support & Supv.	818,171	90,004
Non-Instructional*	<u>2,374,529</u>	<u>285,023</u>
	8,468,598	1,000,046

¹ Source: Statewide Budgeting and Accounting System by reporting centers. See Table III.1 for discretionary funds to the vocational-technical centers.

Achievements Under State and Local Administration

Section V shows the evaluation results. The findings are used by the Department of Vocational Education Services and the local school administrators and staff to improve vocational education. The following is a summary by program area of the fiscal year 1983 achievements.

Agriculture

During the 1983 fiscal year, emphasis was placed on curriculum development, inservice, establishment of new programs, and leadership development through Future Farmers of America (FFA). The core curriculum for vocational agriculture education was updated, revised, printed, and disseminated in cooperation with the Agricultural and Industrial Education Department at Montana State University. The core curriculum was disseminated to all vocational agriculture teachers in the state.

In addition, five teacher resource units were revised, printed, and disseminated. A Vo-Ag Resource Center was established in the Agricultural Education Department at Montana State University. The Center is stocked with the newest vocational agriculture textbooks, audiovisuals, microcomputer software, and teaching aids. The Center is used both for preservice of students preparing to teach vocational agriculture and inservice of practicing vocational agriculture teachers.

Vocational agriculture microcomputer software was reviewed and evaluated with evaluation results disseminated to vo-ag instructors. This project was conducted to conserve scarce budget dollars at the local level and to assure purchase of good quality software. Microcomputer workshops were conducted for vo-ag teachers at five locations around the state.

New programs were established at Hays-Lodge Pole and Stanford.

District FFA leadership training workshops were conducted at nine locations around the state involving about 450 members.

Marketing/Distributive and Cooperative Education

During the 1983 fiscal year the marketing and distributive education (DE) instructors received technical assistance in the area of computer assisted instruction. Two workshops were conducted on uses of the computer in the DE classroom during 1982-83. As a result, microcomputers and software have been added to 50 percent of the existing DE programs. Observation and verbal feedback during fiscal year 1983 has indicated that the workshops and technical assistance on computer purchases were effective. In addition, a computerized, student managed DE school store was developed at C.M. Russell High School. The store enables students to be employed and participate in the learning activities of entrepreneurship. (See Appendix B.)

The Butte Vocational-Technical Center established the first vocational cooperative education program for disadvantaged students in the business occupations program. Support for its development was provided by Vocational Education Act funds. The MDE/Co-op development specialist provided technical assistance to teachers and presentations to community members in support of the program. As a result, the student placement rate in business occupations in Butte, Montana, was between 75-80 percent of the total business students enrolled the first year. The instructor is planning to expand the co-op program to the trade and industry occupations during 1984.

Health Occupations Education

All health occupation education programs are located in the five vocational-technical centers. The 10 programs served 412 students during the fiscal year.

Technical assistance from the Department of Vocational Education specialist concentrated on the Respiratory Therapy Technician. The goal was to develop a two-year ladder concept. This resulted in a cooperative venture with a private four-year college adjacent to the postsecondary vocational-technical center. Implementation of the cooperative venture is scheduled for the fall of 1984. A student may complete one year of training at the vocational-technical center and leave as a completer or take one more year of supplemental instruction at the private college. The center training credits will be transferable to the private college.

Special Needs

The set-aside funds for special needs projects supported 17 programs serving the handicapped students and 12 programs serving the disadvantaged students. One special disadvantaged project was funded which provided 23 Indian students in a public school located on an Indian reservation the opportunity to participate in an agriculture education program.

At the secondary level, projects served 269 handicapped and 126 disadvantaged students. At the postsecondary level, 83 handicapped and 398 disadvantaged students were provided services.

One project designed to provide inservice training for vocational educators serving handicapped students developed a project manual to assist in the development and conducting of special needs projects. The manuals will be disseminated to school districts and other eligible recipients as well as serving as a resource for project writing workshops.

A secondary handicapped project provided restaurant training for 14 mentally retarded and learning disabled students. Participating in a competency based curriculum, these students acquired the skills necessary to be employable. Of the 14 students completing the program, 11 obtained employment earning the federal minimum wage or better.

The fiscal year 1983 special needs funds served approximately 7 percent more students than were served in 1982. The Department of Vocational Education Services specialist provided technical assistance to 40 school districts. This is an increase over fiscal year 1982.

Sex Equity/Displaced Homemakers

The Department of Vocational Education Services human potential development specialist provided Montana schools and others the technical assistance as specified in federal legislation. The work of the specialist that was initiated four years ago came to fruition in fiscal year 1983. The Office of Public Instruction and the specialist supported Montana House Bill 400. During the 1982 Montana legislature, the bill was passed that provided state funds to support the activities of the Displaced Homemaker programs. These programs provide direct and support services to help displaced homemakers obtain employment. During fiscal year 1983 the displaced homemaker program used the state funds.

Over 30 secondary schools received on-site evaluations regarding sex equity during the fiscal year. This number represents about one third of the schools having approved vocational education programs.

The Montana Education Fair was held in Great Falls March 7-11, 1983 with over 300 persons attending. The human potential development specialist gave demonstrations and distributed a wide variety of materials to teachers, administrators and general public. Other workshops were conducted directly or indirectly by the specialist. Examples: Office of Public Instruction staff on the prevention of sexual harassment; Model-Netics training for displaced homemaker program operators; Women in Nontraditional Employment; Women in Math, and Description of Sex Equity Program Requirements for graduating vocational educators.

Vocational Guidance Services

During fiscal year 1983, 24 on-site vocational guidance evaluations were made. The main area of concern addressed the need for a more effective system to follow up program completers. Technical assistance has been provided to assist in developing a follow-up system at the local level even though many of these schools are participating in the state system.

Current occupational information has been collected to update the VIEW program. This material will be reproduced on microfiche and disseminated to schools and other participants during the next fiscal year. The Directory of Montana Postsecondary Vocational-Technical Education was also being updated.

As listed in Appendix A, six guidance projects were completed in the fiscal year. One of the six quality projects was completed by George Martin of the Missoula Vocational-Technical Center. His findings were reported in the American Vocational Journal.

Home Economics

Two methods were implemented in fiscal year 1983 to improve communication and continuity among the vocational home economics teachers in Montana. One method was the development and implementation of a communications system that addressed priority issues among the teachers. Priority issues that were determined were techniques, strategies, methods and systems for improving home economics programs, services and activities. Another method of communication was the development and dissemination of inservice video tape programs. They were used by over 100 home economics teachers.

Program improvement funds were used for research, curricular and teacher development projects. These projects are described in greater detail in Appendix A.

Research Coordinating Unit

Nine abstracts and products for fiscal year 1983 were submitted to the National Center for Research in Vocational Education. Missing final reports and products from Research (Section 131), Exemplary (Section 132) and Curriculum (Section 133) were sent to the National Center for Research in Vocational Education for the time period 1979 to 1982. The center selected three products to be included in Educational Resources Information Center (ERIC).

Business and Office Education

During Fiscal Year 1983, the Business and Office Education programs, at various levels, made great strides in identifying the rapid changes in technology and industry which are affecting curriculum. Workshops were held to provide teachers the opportunity to become familiar with the latest technology in a general way, and also specific subject area applications. These workshops allowed the participants to have "hands on" time with hardware using software that would be appropriate for use with their students.

The curriculum is being updated so that students will have the opportunity to be able to address "traditional" business needs, "automated" business needs, and business in "transition" needs. Ways to assist the teacher to identify the hardware and software classroom needs and meet those needs are beginning to be addressed.

The vocational student organization of the Montana Office Education Association (MOEA) was strengthened through summer officer training, fall conference leadership training, a January planning session, and continued spring officer election.

SECTION III

EXPENDITURES AND RECONCILIATION

Table III.1 shows the expenditure of 1983 federal funds. All of the funds will be spent by September 30, 1984. The final Financial Status Report (NCES 2404-2) for fiscal year 1983 will meet the minimum percentages as specified in the law. The proposed allocation and final distribution of funds will be in agreement by September 30, 1984. The expenditures in Table III.1 (April 30, 1984) show the encumbered and total encumbered. The table shows the 1983 funds forward funded to 1983 and 1984 projects. Adding the 1983 and 1984 encumbered does not equal the total encumbered. The reason is that Montana projects can be forward funded up to 75 percent of the total federal commitment. The project will receive the difference between the forward funding and the total federal expenditure on the project. The total encumbered is the amount of federal funds that have been committed to the projects.

TABLE III.1

	Allocation Budget	<u>Encumbered</u>		Total Encumbered	State Administration Budget	<u>Expended</u>	<u>To Be Obligated</u>
		<u>83 Projects</u>	<u>84 Projects</u>				
SECTION 120							
Disadvantaged	369,959.00						
MT State Prison 242		93,530.74			15,000.00	15,000.00	
Butte VTC 243			7,423.50				
Hellgate HS (LEP) 244			4,683.75				
Blackfeet Com Col 245			21,516.75				
Butte VTC 246			42,790.00				
Missoula VTC 247			22,458.00				
Pine Hills 248			10,577.25				
Salish-Kootenai 249			34,116.00				
Mountain View 251							
YMCA-Gt. Falls 252			5,197.50				
Absarokee HS 255			6,514.50				
Helena Indus. 256			16,875.00				
Butte VTC 264			15,544.00				
120 Disadvantaged TOTALS	369,959.00	93,530.74	187,696.25	342,934.74	15,000.00	15,000.00	12,024.26

TABLE III.1

	Allocation Budget	Encumbered		Total Encumbered	State Administration Budget	Expended	To Be Obligated
		83 Projects	84 Projects				
Section 120							
Apprenticeship	60,000.00						
Helena		18,032.96	2,000.00				
Billings		16,451.11	1,040.74				
Great Falls		1,027.07	500.00				
Missoula		2,741.85					
Butte		6,010.98	500.00				
Colstrip		7,592.82					
Salish-Kootenai		1,265.47	500.00				
<hr/>							
120 Apprenticeship TOTALS	60,000.00	53,122.26	4,540.74	57,663.60			
<hr/>							
Postsecondary	1,000,046.00						
Billings VTC		142,907.00					
Butte VTC		226,210.00					
Gt. Falls VTC		202,409.00					
Helena VTC		238,111.00					
Missoula VTC		190,409.00					
<hr/>							
120 Postsecondary TOTALS	1,000,046.00	1,000,046.00		1,000,046.00			
<hr/>							
Sex Bias TOTAL	50,000.00				50,000.00	50,000.00	
State Admin TOTAL	174,810.00				174,810.00	163,660.31	11,149.69
<hr/>							
Displaced Homemaker*	10,000.00						
Gal Co Hlth/Drug DH01		2,100.00					
Flthd Comm Col DH02		4,352.11					
Career Dev, Hlna DH03		1,560.00					
Hunan Res Dev,Hvr DH04		1,746.90					
<hr/>							
120 Displaced Homemaker TOTALS	10,000.00	9,759.01					

*Used 120 Disadvantaged Funds

TABLE III.1

	Allocation Budget	<u>Encumbered</u>		Total Encumbered	State Administration Budget	<u>Expended</u>	To Be Obligated
		83 Projects	84 Projects				
Section 120							
Handicapped	184,979.00				15,000.00	15,000.00	
Helena Spc Ed 237		2,696.40					
Garfield HS 231			2,509.25				
Kalispell HS 233			12,075.00				
Nthcntrl Lrn Ctr 234			34,952.25				
Anaconda HS 235			26,245.50				
Helena HS 236			21,053.54				
Msla Co. HS 238							
Lincoln Co. HS 239							
Livingston HS 240			6,358.50				
Whitefish HS 241			15,495.00				
Manhattan HS 242			1,782.00				
Kalispell HS 243			2,572.50				
Flor-Carlton HS 244							
Butte HS 245			8,883.00				
Helena VTC 247							
Helena HS 248			2,000.00				
120 Handicapped TOTALS	184,797.00	2,696.40	133,926.54	154,622.94	15,000.00	15,000.00	

TABLE III.1

	Allocation Budget	Encumbered		Total Encumbered	State Administration Budget	Expended	To Be Obligated
		83 Projects	84 Projects				
Section 130							
Disadvantaged	67,719.00				4,986.00		4,986.00
U of M		16,490.93					
MSU			11,470.00				
MT State Prison			19,691.57				
130 Disadvantaged TOTALS	67,719.00	16,490.93	31,161.57	62,733.00	4,986.00		
Handicapped	33,860.00						
Whitefish		144.33					
MSU		19.48					
Bozeman Sp Ed		253.57					
MSU			12,091.00				
Gt. Falls HS			17,321.62				
130 Handicapped TOTALS	33,860.00	417.38	29,412.62	33,860.00			
State Admin TOTAL	40,000.00				40,000.00	35,523.50	4,476.50
Research	24,372.00				13,000.00	13,000.00	
MSU		1,697.15					
MSU			1,874.00				
MSU			3,302.85				
MSU			1,500.00		3,000.00		2,440.19
130 Research TOTAL	24,372.00	1,697.15	6,676.85	8,374.00	16,000.00	13,000.00	2,440.19

TABLE III.1

	Allocation Budget	<u>Encumbered</u>		Total Encumbered	State Administration Budget	<u>Expended</u>	<u>To Be Obligated</u>
		<u>83 Projects</u>	<u>84 Projects</u>				
Section 130							
Curriculum Dev	12,770.00				2,400.00	2,400.00	
MSU		2,218.39					
MSU		1,532.84					
U of M		2,076.80					
Gt. Falls HS			3,300.59				
MSU			943.54				
MSU			288.77				
130 Curric Dev TOTALS	12,770.00	5,828.03	4,532.90	10,370.00	2,400.00	2,400.00	
Exemplary	10,000.00						
CM Russell HS		5,666.00					
Helena HS		4,340.00					
130 Exemplary TOTALS	10,000.00	10,006.00		10,006.00			(6.00)

TABLE III.1

	Allocation Budget	Encumbered		Total Encumbered	State Administration Budget	To Be Obligated
		83 Projects	84 Projects			
Section 130						
Teacher Training	82,155.00					
MSU	826A	2,922.48				
U of M	830	11,255.61				
OPI	831	988.23				
MSU	834	6,292.85				
Butte VTC	835	800.00				
MSU	836	1,200.00				
Tchr Ctr of MT	838	39,085.07				
OPI	839	1,075.50				
U of M	840	3,911.41				
MSU	841	1,427.12				
MSU	842	3,674.46				
U of M	843	1,127.00				
MSU	844	1,289.80				
Billings VTC	845	800.00				
Helena VTC	846	800.00				
Gt. Falls VTC	847	800.00				
Missoula VTC	848	562.00				
U of M	850		3,750.00			
MSU	852		29.50			
NMC	854					
130 Teacher Training TOTALS	82,155.00	78,011.53	3,779.50	82,155.00		

TABLE III.1

	Allocation Budget	Encumbered		Total Encumbered	State Administration Budget	Expended	To Be Obligated
		83 Projects	84 Projects				
Section 130							
Guidance	67,719.00						
Butte VTC		1,000.00					
Helena VTC		1,511.47					
Missoula VTC		897.39					
Gt. Falls VTC		1,000.00					
Billings VTC		825.75					
Helena VTC			6,848.00				
Helena VTC			10,324.31				
Missoula VTC			7,159.00				
MT Career Info			24,003.89				
130 Guidance TOTALS	67,719.00	5,234.61	48,335.20	67,719.00			
Section 140							
Special Disadv	53,453.00						
Hays-L Pole		30,092.00					
Hays-L Pole			23,361.00				
140 Sp Disadv TOTALS	53,453.00	30,092.00	23,361.00	53,453.00			
Section 150							
Regular Payment*	108,474.00	72,319.00					
Depressed Area*		36,154.00		108,473.00			
*See Table III.2 for details.							
Section 120D	13,360.00					13,360.00	-0-
Planning & Evaluation							
TOTAL							
State Matching Administrative Funds						307,943.81	

TABLE III.2
FY 83 SECONDARY FEDERAL EXPENDITURES

Depressed
150

<u>School Name</u>	<u>120</u>	<u>130</u>	<u>140</u>	<u>150</u>	
Absarokee	6,514.50			364.00	
Alberton					4,347.00
Anaconda	26,245.50				
Arlee					
Augusta				367.00	
Baker				875.00	
Beaverhead Co.				659.00	
Belgrade				746.00	
Belt				271.00	
Big Sandy				1,572.00	
Bigfork					
Billings				865.00	
Blue Sky (Rudyard)					
Box Elder				2,023.00	
Bozeman		253.57		231.00	
Bridger				287.00	
Broadview				518.00	
Broadwater Co.					3,771.00
Browning					
Butte	8,883.00			1,460.00	
Carter Co.				1,781.00	
Cascade				202.00	
Centerville					
Charlo				655.00	
Chinook				297.00	
Choteau				1,101.00	
Circle				104.00	
Clyde Park				164.00	
Colstrip				370.00	
Columbus				486.00	
Conrad					3,300.00
Corvallis				214.00	
Culbertson				369.00	
Custer Co.				626.00	
Cut Bank				549.00	
Dawson Co.				710.00	
Denton				568.00	
Fairfield				154.00	
Fairview				784.00	
Fergus (Lewistown)					12,866.00
Flathead	14,647.50			414.00	
Forsyth				152.00	
Fort Benton				451.00	
Fromberg				630.00	
Garfield Co.	2,509.25			685.00	
Glasgow				3,317.00	
Great Falls		26,288.21		1,435.00	
Hamilton				1,105.00	
Hardin				1,657.00	
Harlem				968.00	
Harlowton					

TABLE III.2 (cont.)

<u>School Name</u>	<u>120</u>	<u>130</u>	<u>140</u>	<u>150</u>	<u>Depressed 150</u>
Havre				1,081.00	
Hays-Lodge Pole			53,453.00		
Helena	25,749.94	4,340.00		4,606.00	
Hinsdale				154.00	
Hobson				193.00	
Hot Springs				360.00	
Huntley Project				606.00	
Jefferson				1,048.00	
Joplin Inverness				409.00	
Laurel				810.00	
Libby				1,790.00	
Lincoln Co.					3,313.00
Lodge Grass				586.00	
Malta				948.00	
Manhattan	1,782.00			626.00	
Medicine Lake				152.00	
Melstone				273.00	
Missoula	4,683.75			8,631.00	
Moore				922.00	
Nashua				1,355.00	
Opheim				308.00	
Park City				1,423.00	
Park (Livingston)	6,358.50			243.00	
Plentywood				127.00	
Plevna				890.00	
Polson				398.00	
Powder River Co.				1,287.00	
Powell Co.				386.00	
Red Lodge				1,091.00	
Ronan				358.00	
Rosebud				304.00	
Roundup				241.00	
Scobey				979.00	
Shelby				377.00	
Shepherd				438.00	
Sheridan				379.00	
Sidney				463.00	
Simms					2,881.00
Stevensville				140.00	
Sunburst				485.00	
Sweet Grass Co.				948.00	
Three Forks				1,746.00	
Troy				1,023.00	
Twin Bridges				387.00	
Victor				177.00	
Westby				694.00	
White Sulphur					5,676.00
Whitefish	15,495.00	144.93		1,008.00	
Whitehall				514.00	
Wibaux				769.00	
Wolf Point					
TOTALS	112,868.94	31,026.71	53,453.00	72,319.00	36,154.00

Meeting Employment Needs

The Montana State Plan for Vocational Education 1983-87 established the employment needs for the state of Montana. In May 1983 the Montana Occupational Information Coordinating Committee published 700 copies of Montana Supply Demand Report. This 74-page report gave the annual supply and demand needs for many jobs. The demand calculations were made by the Montana Department of Labor based on industry surveys. The report was inadequate for job opportunities related to agriculture. The Department of Vocational Education Services issued a competitive Request for Proposal on Agriculture/Agribusiness Manpower Research for Fiscal year 1984. The new employment information is being used to update vocational programs within the state. At present, it appears that high technology employment opportunities are limited in Montana.

Section 120 Disadvantaged

Ten 120 disadvantaged projects were funded in FY 83. This exceeded the number projected for FY 83 due to the carry over funds from FY 82 which were made available. Many of the populations were Native Americans or incarcerated youth. In fiscal year 1983, a project, "Pre-Vocational English and Job Seeking Skills for Limited English Speaking High School Students," was funded at Missoula County High Schools. These students are Southeast Asian refugees, many of whom had no formal schooling. Major headings of the project curriculum were: a) Personnel Information; b) Career Education; c) Job Seeking; d) Job Application; e) Job Interview; f) Job Adjustment; and g) Consumer Education. The funds expended by Mid-May 1984 were not in compliance with the formula amount; however, the amount will be in compliance by September 30, 1984.

Section 120 Handicapped

Twelve 120 handicapped projects were funded in FY 83. This exceeded the number projected in the 1983 State Plan due to carry over funds from FY 82 which were made available. The majority of the projects funded were located in public secondary schools. Funding was increased in the area of providing support services for those students being mainstreamed into regular vocational programs.

Section 120 Apprenticeship

The number of apprenticeship programs operated in fiscal year 1983 was almost the same as planned in the 1983-87 state plan. Two apprenticeship programs were added and one was deleted. See Table II.3 for details. The planned 1983 expenditure was \$65,864 and the actual expenditure was \$60,799.69.

Section 120 Postsecondary

The expenditures of the five vocational-technical centers was in accordance with the Montana 1983-87 State Plan and dictates of the Montana Legislature. In addition to the regular federal expenditure of \$1,000,046 other federal expenditures are noted in Table III.1.

Section 120 Displaced Homemaker

The 1983 displaced homemaker expenditure of \$9,759.01 approximates the planned expenditure of \$10,000. The 1983 expenditure is considerably more than the zero expenditure of fiscal year 1982. This does not mean that the displaced homemakers were neglected in 1982. Technical assistance was given as well as co-sponsoring a workshop for displaced homemakers along with the Montana Department of Labor and Industry. Participants at the workshop represented community based organizations, local school districts, higher education, Department of Labor and Industry and the general public.

Section 120 Sex Bias

The majority of the fiscal year funds were used for the professional salary and the salary for the part-time support staff member. The remainder of the funds were used for technical assistance visitations, three workshops and distribution of about 1,200 copies of various publications. Details on workshops and distribution of publications are mentioned in other portions of this report.

Section 130 Disadvantaged

The fiscal year 1983 projects were funded based on the 1983-87 state plan and the appropriate rules and regulations. The majority of the projects approved relate instruction in mathematics, reading, speaking and writing skills to vocational programs of the school.

Section 130 Handicapped

The handicapped projects were selected in accordance with the 1983-87 state plan. The procedure on selection of quality projects includes a proposal reader from the Special Services Unit within the office. This arrangement has important secondary benefits. The Special Services Unit can help prevent the duplication of funding; the unit is aware of vocational projects and how they serve student needs.

Section 130 Guidance

There were six guidance projects funded in 1983. See Table III.1 and Appendix A for details.

Section 130 Curriculum

There were three curriculum projects funded in 1983. See Table III.1 and Appendix A for details.

Section 130 Teacher Development Projects

There were 17 teacher development projects in 1983. See Table III.1 and Appendix A for details.

Section 130 Research

There were two research projects in 1983. See Table III.1 and Appendix A for details.

Section 140 Special Needs

In fiscal year 1983 one school received the special needs funds (Table III.1). The school receiving the funds was determined by the formula in the 1983-87 state plan.

Section 102d Planning

The funds were designated as administrative and were used in part to prepare the 1984 State Plan and the 1982 Accountability Report. See Table III.1.

Reconcile Percent Required with Expenditures

The actual expenditures to mid-May 1984 which are shown in Table III.1 will not meet the required percentage. The funds are obligated and the required percentage will be attained by September 30, 1984.

State/local funds equal or exceed 50 percent of annual plan expenditures for Section 102(a) activities on a state-wide basis.

State/local funds totalled \$14,406,333 which exceeded the federal funds of \$2,363,678

At least 10 percent of allotments under Section 102(a) is expended for handicapped persons.

The planned expenditure is 10 percent and will be met by September 30, 1984.

At least 20 percent of allotments under Section 102(a) is expended for programs for disadvantaged persons, including limited English speaking persons.

The planned expenditure is 20 percent and will be met by September 30, 1984.

At least 15 percent of allotment under Section 102(a) is expended for postsecondary and adult programs.

The actual expenditures (see Table III-1) exceeded the requirement.

No less than \$50,000 shall be expended from funds available under Section 120 of the Act for support of full-time personnel to perform functions relating to sex bias and sex discrimination.

The \$50,000 was expended (see Table III.1).

At least 20 percent of the federal funds under Section 130 shall be expended for vocational guidance and counseling.

The planned expenditure is 20 percent and will be met by September 30, 1984.

A state shall use at least one-third of funds available for programs of Section 150 to pay up to 90 percent of the cost of programs in economically depressed areas.

See Table III.2. The actual expenditures equalled the one-third requirement.

The state expended \$307,943.81 in federal funds for administration.

State General Fund expenditure was \$311,152.20, thus the match was exceeded.

Match: National Priority

The state and local match shown below is based on March 1984 data. Most of the projects have been closed; consequently the state has the certified expenditure reports on the local match. Overall the state matched the federal funds with state/local funding. As of March 1984 the disadvantaged 130 match was short. The 1983 disadvantaged projects were slow to start since the state did not receive substantial approval until 9/29/82 and final approval until 2/14/83. As the late-starting 1983 projects are completed, the match will exceed the federal amount.

<u>Program</u>	<u>State/Local Amount</u>	<u>Federal Amount</u>
Disadvantaged 120	741,264	369,959
Disadvantaged 130	65,810	67,719
Handicapped 120	244,398	184,979
Handicapped 130	148,865	33,860
Limited-English Speaking	22,568	6,006

Table III.1 shows the state and federal expenditures for administration.

Maintenance of Effort

Montana state maintenance of effort is determined on a statewide basis. In fiscal year 1982, state and local expenditures were \$13,943,148. The 1983 state and local expenditures were \$14,406,333; consequently, Montana did maintain effort on a statewide basis. Nineteen secondary schools did not maintain effort; however, the rules and regulations do permit exceptions under the "Unusual Circumstances Rule." The schools have maintained effort under the rule, and the documentation of the unusual circumstances is retained by the state.

The following Table III.3 shows state/local expenditures used to calculate Maintenance of Effort.

TABLE III.3

1983 Accountability Report
State & Local Expenditures
Source: Financial Status Reports

	<u>1982 Funds</u>	<u>1983 Funds</u>	<u>Total</u>
120 Dis F-T	658,550	105,282	763,832
120 Hcp F-T	239,817	4,581	244,398
Apprenticeship	44,319	414,265	458,584
New/Emerging	84,459	---	84,584
Disp Hmkr	---	9,303	9,303
Secondary		4,500,000*	4,500,000
Postsecondary		6,352,668*	6,352,668
Administration		193,660	193,660
Total 120	<u>1,027,145</u>	<u>11,579,759</u>	<u>12,606,904</u>
130 Dis	65,810	---	65,810
130 Hcp	140,910	7,955	148,865
130 Guidance	20,101	1,308	21,409
130 Exemplary		11,542	11,542
Administration	<u>15,666</u>	<u>35,524</u>	<u>51,190</u>
Total 130	<u>242,487</u>	<u>56,329</u>	<u>298,816</u>
140	---	613	613
150	<u>---</u>	<u>1,500,000</u>	<u>1,500,000</u>
TOTAL	1,269,632	13,136,701	14,406,333
*Total Non/Federal		4,500,000	6,352,668
State		736,442	5,048,855
Local		3,763,558	1,303,813

* Includes 22,568 LESA Project

Distribution of Funds

The distribution of federal funds was made according to the policies and procedures described in the Montana 1983-87 State Plan. The secondary priority formula has five factors: a) relative financial ability; b) relative concentration of low-income families; c) economically depressed areas; d) dropout rate; and e) new programs. Factors (a) and (b) have more point value than do the remaining factors.

The postsecondary and Other Eligible Recipients (OER) priority formula uses the same factors; however, other sources of information were used in the calculation. For example, the postsecondary factor of relative concentration of low-income population uses the number of Pell Grant recipients divided by the OER's total enrollment.

Evaluation by State Education Agency

Section 400.402 requires the state board to evaluate the effectiveness of formally organized programs supported by federal, state and local funds. The Superintendent of Public Instruction in Montana is the sole agent for vocational education within the state. The Superintendent utilized his staff to evaluate the vocational education programs under his responsibility. During the five years (1983 to 1987) of the state plan, there will be a 20 percent review of the program each year. The "1983 Accountability Report" concentrates on the 1983 fiscal year findings and evaluations. Third party findings from the five year interval will be incorporated where appropriate.

Planning and Operational Processes

The staff of the Department of Vocational Education Services in cooperation with the Montana Vocational Education Planning Council developed the 1983 fiscal year plan. The plans were implemented by the staff. As previously mentioned, the Superintendent through the assistant superintendent evaluates the success of the operational process.

During the fiscal year all staff members rewrote their job descriptions. An individual staff personnel evaluation system was developed. If individual staff members perform their tasks well, consequently the departmental tasks will be efficiently accomplished. The staff evaluation will not be completed until June 1984.

The 1983 planning process included programmatic as well as operational planning. The results of the programmatic planning are shown in Section II. The operational plans included scheduling the secondary on-site evaluations. The scheduling sought to plan cost efficient routes and minimize conflicts with the school's schedule. The planning process was acceptable since very few schools had to be rescheduled. The weather again cooperated in that no evaluation visit was cancelled because of inclement weather.

Planning with the advice of secondary school personnel resulted in a 60 percent reduction in paper work. In addition, the planning process resulted in greater use of the main frame office computer as well as the departmental microcomputer.

Student Achievement

Student achievement as measured by standard occupational proficiency tests or criterion referenced tests is limited in Montana. Montana vocational students are members of national organizations closely associated with vocational programs. Members belong to Future Farmers of America (FFA), Office Education Association (OEA), Distributive Education Clubs of America (DECA), Vocational Industrial Clubs of America (VICA) and Future Homemakers of America (FHA/HERO). These members participate in state, regional and national competition and award programs. Montana members receive a proportionate or better share of the awards.

Student Employment

Student employment information from VEDS is shown in Section IV. The results were disappointing; consequently, procedures were modified. The early returns in 1984 appear to be better than in 1983. Another factor affecting rate of student employment was the depressed economy. The professional staff in two of the five vocational-technical centers have made additional telephone calls to 1982-83 completers. The new information indicates higher placement rates and wages.

Special Populations -- Women

The publication on women in secondary and postsecondary vocational programs was written by the human potential development specialist. In April 1984 the publication was at the state printer. The secondary vocational results showed little change between the female enrollment and completion patterns. One problem in the analysis of the patterns was the classification of vocational programs. The 1982 data was recorded by the Office of Education (O.E.) code while the 1983 data was recorded by Classification of Instruction Program codes (CIP).

There was little change in the enrollment and completion patterns for women in the five postsecondary vocational-technical centers. The female enrollment in 1982 was 49.0 percent. This increased in 1983 to 50.0 percent. The completion rate increased by .6 percent.

Special Populations -- Minority

The 1980 Census of General Population Characteristics shows that 94.1 percent of the population was white. The largest percentage minority was 4.7 percent American Indian. In the central part of the state (Region II), Native Americans are 7 percent of the secondary vocational enrollment. In the postsecondary vocational-technical centers, Native Americans are 3 percent of the vocational enrollment.

Special Populations -- Handicapped

Fiscal year 1982 handicapped population was compared with 1983 fiscal year. The number of secondary handicapped students was about the same. There was an increase of 83 handicapped postsecondary students. This increase can be attributed to the efforts of one postsecondary vocational-technical center.

Special Populations -- Disadvantaged

The total number of disadvantaged students served in the secondary and post-secondary centers was about the same in 1983 as it was in fiscal year 1982. There was a shift in where those served were located. There was an increase in the number served in the postsecondary centers with a corresponding decrease in the number served in the secondary schools.

Special Populations -- LESA

The most dramatic need for assistance to students of limited-English speaking ability was evident in the Missoula area. A staff member of the Office of Public Instruction has factual information concerning the needs. A Southeastern Asian leader moved to the Missoula area and encouraged others to settle there. Based on limited information, these Southeastern Asian students benefit from LESA training. Asian students are more likely to be enrolled in the Missoula Vocational-Technical Center than in any of the other postsecondary centers.

SECTION IV

STUDENT AND EMPLOYER FOLLOW-UP

The present Montana secondary vocational education follow-up system began in April 1982. Senior student information was collected on completer/leaver status and expected mailing address. These 1,549 completers and 650 leavers from the western one-third of the state are referred to as Region I. In April 1983, these Region I students were mailed a student follow-up form. The computer tabulation of the mail completer results are shown in Table IV.1.

TABLE IV.1
Montana Region I Completer Follow-up 1983

	TOTAL MIL	FULL REL	EMP NR	ADDL ED	UN- EMPL	NILF NPAE	STAT UNKNOWN
Ag Production	52	1	1	1	2	0	45
Ag Mechanics	27	0	1	2	2	0	23
Ornamental Horticulture	0	0	0	0	0	0	0
Forestry	32	0	0	1	0	0	31
Marketing/Distributive Ed	56	0	0	1	2	0	53
Health Occupations	17	0	0	1	1	0	15
Consumer Homemaking	169	0	1	5	3	2	158
Home Ec Occupational Prep	44	0	1	3	2	1	37
Business and Office	575	4	12	7	29	2	519
Cooperative Education	4	1	0	1	0	0	2
Body and Fender Repair	6	0	0	0	0	0	6
Mechanics	183	2	4	2	2	2	171
Drafting	76	1	0	3	1	0	71
Electricity/Electronics	16	0	0	0	1	0	15
Graphic Arts	26	0	1	0	0	0	25
Metal Working/Machine Shop	25	0	0	1	2	1	22
Welding	93	1	3	4	4	2	79
Broadcasting	0	0	0	0	0	0	0
Woodworking/Building Construction	148	1	5	1	1	0	140
Other	0	0	0	0	0	0	0
TOTALS	1,549	11	29	33*	52*	10	2 1,412

Abbreviations:

FULL MIL = Military Service Full Time
 EMP REL = Employed in a Field Related to Training
 EMP NR = Employed in a Field Not Related to Training
 ADDL ED = Pursuing Additional Education
 UN-EMPL = Unemployed
 NILF-NPAE = Not in Labor Force and Not Pursuing Additional Education
 STAT UNKNOWN = Status Unknown

*Multi-response was permitted between EMP NR and Addl Ed. Tables IV.1 and IV.2 reduced the employed and not related. For example, a student may be working while continuing his/her education. In these tables they were counted only as additional education.

The results of the mailed 650 leaver follow-ups are shown in Table IV.2. The abbreviations are the same as for Table IV.1.

TABLE IV.2
Montana Region I Leaver Follow-up 1983

	TOTAL	FULL	EMP	EMP	ADDL	UN-	NILF	STAT
	MIL	REL	NR	ED	EMPL	NPAE	UNKNOWN	
Agriculture Production	16	1	0	0	1	0	0	14
Agriculture Mechanics	7	0	0	1	0	0	0	6
Ornamental Horticulture	0	0	0	0	0	0	0	0
Forestry	3	0	0	0	0	0	0	3
Marketing/Distributive Ed	32	0	0	0	1	0	0	31
Health Occupations	10	0	0	0	1	0	0	9
Consumer Homemaking	70	1	0	2	5	0	0	62
Home Ec Occupational Prep	22	0	0	0	1	0	0	21
Business and Office	136	1	1	2	8	2	1	121
Cooperative Education	2	0	0	0	0	0	0	2
Body and Fender Repair	5	0	0	0	0	0	0	5
Mechanics	69	0	3	0	2	1	0	63
Drafting	44	0	0	0	2	0	0	42
Electricity/Electronics	25	0	0	0	1	3	0	22
Graphic Arts	23	0	0	0	1	0	0	22
Metal Working/Machine Shop	11	0	0	1	0	0	0	10
Welding	23	0	1	0	1	0	0	21
Broadcasting	2	0	0	0	0	0	0	2
Woodworking/Building Construction	50	1	0	0	0	0	0	49
Other	100	0	0	3	2	0	0	95
TOTALS	650	4	5	9*	28*	3	1	600

The percentage return from the one-third student follow-up was disappointing. It is believed that one of the reasons for the poor return was that the student had to pay the return postage. This year the efficiency of the follow-up system has been improved. Students will have a prepaid-preaddressed envelope in which to make the returns.

In fiscal year 1983, the senior vocational students from the central portion of the state (Region II) supplied information on their vocational program and future mailing addresses. The schools from Region II are shown on page IV-3.

Schools from Region II 1983

Broadview	Lewistown	Box Elder
Rapelje	Denton	Big Sandy
Columbus	Winifred	Fort Benton
Park City	Hobson	Belt
Laurel	Circle	Sand Coulee
Joliet	Augusta	Great Falls
Fromberg	Sunburst	Cascade
Bridger	Cut Bank	Simms
Belfry	Browning	Fairfield
Red Lodge	Shelby	Choteau
Absarokee	Joplin	Dutton
Big Timber	Havre	Conrad
Harlowton	Chinook	Rudyard
Judith Gap	Harlem	
Moore	Turner	

The 1982-83 total vocational enrollment for Region II was 7,925 with an unduplicated count of 5,602 students. There was an unduplicated count of 1984 senior students of which 569 were completers. Montana's definition of completer is a person who takes 4 or more semesters of a vocational program. The program specialists within the Department of Vocational Education Services believe this will provide completers with entry level skills. A random sample of 403 seniors completing the April 1983 (blue card) student information cards was made. The mean number of semesters of vocational course work was 9.00 semesters with a standard deviation of 4.60 semesters. The 1983 mean and standard deviation for Region II is less than Region I for fiscal year 1982.

The 1983 Region II completers, sex and ethnic background are shown in Table IV.3.

Table IV.3

1983 Montana Region II Vocational Completers
by Sex and Ethnic Category

Program Description	TOTAL COMPL	1 M	1 F	2 M	2 F	3 M	3 F	4 M	4 F	5 M	5 F
Agriculture Production	109	3	0	0	0	0	0	0	0	99	7
Agricultural Supplies & Services	0	0	0	0	0	0	0	0	0	0	0
Agricultural Mechanics	0	0	0	0	0	0	0	0	0	0	0
Forestry	0	0	0	0	0	0	0	0	0	0	0
Other Agriculture	0	0	0	0	0	0	0	0	0	0	0
General Merchandising	46	0	0	0	0	0	0	0	0	21	25
Nursing Assistant (Aide)	0	0	0	0	0	0	0	0	0	0	0
Other Health	0	0	0	0	0	0	0	0	0	0	0
Comprehensive Homemaking	0	0	0	0	0	0	0	0	0	0	0
Other Consumer and Homemaking	0	0	0	0	0	0	0	0	0	0	0
Care & Guidance of Children	0	0	0	0	0	0	0	0	0	0	0
Clothing Management, Production & Service	0	0	0	0	0	0	0	0	0	0	0
Food Management, Production & Service	5	0	1	0	0	0	0	0	0	3	1
Home Furnishings, Equipment & Service	0	0	0	0	0	0	0	0	0	0	0
Institution & Home Management & Service	0	0	0	0	0	0	0	0	0	0	0
Other Home Economics Occupational Prep	0	0	0	0	0	0	0	0	0	0	0
Clerical Office Practice	157	1	4	1	0	0	0	0	0	18	132
Secretarial Office Practice	53	2	2	0	0	0	1	0	0	9	39
Simulated Model Office	18	0	0	0	0	0	0	0	0	1	17
Appliance Repair	0	0	0	0	0	0	0	0	0	0	0
Body and Fender Repair	0	0	0	0	0	0	0	0	0	0	0
Auto Mechanics	79	3	0	0	0	0	0	0	0	74	2
Carpentry	8	2	0	0	0	0	0	0	0	6	0
Drafting	16	0	0	0	0	0	0	0	0	15	1
Electronics	12	0	0	1	0	2	0	0	0	9	0
Graphic Arts Occupations	0	0	0	0	0	0	0	0	0	0	0
Metalworking (General)	11	0	0	0	0	0	0	0	0	11	0
Welding	8	0	0	0	0	0	0	0	0	7	1
Small Engine Repair	0	0	0	0	0	0	0	0	0	0	0
Industrial Cooperative Training	11	0	0	0	0	0	0	0	0	11	0
Broadcasting	0	0	0	0	0	0	0	0	0	0	0
Occupationally Oriented Industrial Arts	0	0	0	0	0	0	0	0	0	0	0
Carpentry/Construction	12	4	0	0	0	0	0	0	0	8	0
Drafting	6	3	1	0	0	0	0	0	0	1	1
Electricity/Electronics	5	1	0	0	0	0	0	0	0	4	0
Graphic Communications	0	0	0	0	0	0	0	0	0	0	0
Metalwork (includes welding)	0	0	0	0	0	0	0	0	0	0	0
Power Mechanics	6	1	0	0	0	0	0	0	0	5	0
Woodworking (includes cabinetmaking)	7	0	0	0	0	0	0	0	0	6	1
Other, including Combined Program	0	0	0	0	0	0	0	0	0	0	0
	569	20	8	2	0	2	1	0	0	309	227

Coding for Table IV.3 is as follows:

- 1 = American Indian/Alaskan Natives
- 2 = Asian/Pacific Islander
- 3 = Black, not Hispanic
- 4 = Hispanic
- 5 = White, not Hispanic

Postsecondary

Montana has five postsecondary vocational-technical centers. They are located in Billings, Butte, Great Falls, Helena and Missoula. The total completers for fiscal year 1983 were 1,185. The number of completers by Classification of Instruction Program (CIP) is shown in Table IV.4.

TABLE IV.4
1983 Montana Postsecondary Completers by CIP

<u>CIP</u>	<u>PROGRAM</u>	<u>COMPLETERS</u>
01.0204	Agricultural Power Machinery	21
06.1401	Marketing Management	16
07.0101	Accounting, Bookkeeping	77
07.0301	Business Data Processing	45
07.0302	Business Computer and Console Operation	8
07.0303	Business Data Entry Equipment Operation	14
07.0305	Business Data Programming	22
07.0604	Legal Secretarial	10
07.0605	Medical Secretarial	10
07.0606	Secretarial	21
07.0607	Stenographic	2
07.0608	Word Processing	3
07.0702	Clerk-Typist	79
07.0705	General Office Clerk	4
07.0707	Receptionist and Communications Systems	8
08.0102	Fashion Merchandising	4
08.0705	Retailing	1
15.0201	Civil Technology	4
15.0302	Electrical Technology	5
15.0303	Electronic Technology	42
17.0101	Dental Assisting	17
17.0210	Respiratory Therapy	24
17.0211	Surgical Technology	15
17.0602	Nursing Assisting	68
17.0605	Practical Nursing	180
20.0401	Food Production, Management and Services	5
20.4030	Chef/Cook	23
46.0201	Carpentry	15
47.0105	Industrial Electronics	59
47.0201	Heating, Air Conditioning and Refrigeration	30
47.0302	Heavy Equipment Maintenance and Repair	19
47.0408	Watch Repair	3
47.0602	Aircraft Mechanics	18

<u>CIP</u>	<u>PROGRAM</u>	<u>COMPLETERS</u>
47.0603	Automotive Body Repair	25
47.0604	Automotive Mechanics	113
47.0605	Diesel Engine Mechanics	26
47.0606	Small Engine Repair	12
48.1010	Drafting, General	22
48.0503	Machine Tool Operation/Machine Shop	32
48.0508	Welding, Brazing and Soldering	97
49.0202	Construction Equipment Operation	10
03.0501	Forest Technology	1
07.0699	Secretarial and Related	1
47.0699	Truck and Diesel Mechanics	26
	TOTALS	1,237

In comparing fiscal year 1982 postsecondary enrollment and completers with 1983, there has been an increase. The total FTE enrollment increased by 198 while the 1983 completers increased by 160 persons. Completers increased by approximately 2.7 percent in 1983 compared to 1982 statistics.

Postsecondary Follow-up

The economy in Montana and the nation appears to have reduced the job placement opportunities for vocational-technical center completers. In early January 1983, Helena and Butte Vocational-Technical Centers made additional telephone contact with completers. It was noted that the placement numbers increased. The figures in Table IV.5 do not reflect the increase since they are the VEDS figures reported in December 1982.

TABLE IV.5
FY 1983 Montana Postsecondary Completer Follow-Up

Completers Universe	Completers Sample	Military Service	Employed Related	Employed Not Rel.	Additional Education	Unemployed	Status Unknown
1077	990	0	282	202	16	159	331

Table IV.6 represents a 20 percent sample of leavers from the postsecondary vocational-technical centers. A leaver is a person who completed one or more quarters of a vocational program without completing all the prescribed course work necessary to obtain a certificate.

TABLE IV.6
Postsecondary Sample of FY 1983 Leavers

Sample		Empl. Related				Empl. Non-Rel				Military	Unemp.	Status
Males	Females	mean salary/hr.				mean salary/hr						Unknown
		M	Sal	F	Sal	M	Sal	F	Sal			
63	80	5	9.89	6	5.59	4	4.07	10	5.75	1	2	115

Employer Follow-Up; Secondary

The student follow-up questionnaire has a statement in relation to contacting the student's employer. The statement is, "I grant permission to obtain additional information from my present employer related to my vocational training for the job which I presently hold." The student is to check yes or no and sign the statement. Based on the experience of the third party evaluator for fiscal year 1982, secondary vocational completers are extremely reluctant to let an evaluator contact the employer. Of the 81 students from Region I who were employed, only 21 students permitted the Department of Vocational Education Services to contact their employers. The office received eight of the 21 employer questionnaires. Seven of the eight were from completers and one from a leaver. The mean calculations from the employer questionnaires are shown in Table IV.6.

TABLE IV.6
Fiscal Year 1983--Employer Follow-Up
Rating of Secondary Vocational Completers

<u>Area of Rating</u>	<u>Rating</u>				
	Very Good(5)	Good(4)	Average(3)	Poor(2)	Very Poor(1)
Technical knowledge			4.0 mean		
Work attitude			4.4 mean		
Work quality			4.1 mean		
Work habits			4.1 mean		

The employers gave an "overall rating of the vocational preparation of this individual as it related to the requirements of his/her job?" a mean of 3.3. The employer rating scale had a numerical value of 4 for "very good" and 3 for "good."

Seventy-one percent of the responding employers had "no basis for comparison" of rating the employee's preparation in relation to other employees in his/her work group who did not receive vocational training.

Almost all of the responding employers provided written comments. Some comments were: "D_____ has a naturally cheerful outlook on life and an excellent work attitude. If you helped him develop this you are to be complimented"; "Should be more customer relations taught and also proper telephone procedures"; "More on-the-job type work in the classroom."

The secondary student follow-up and employer follow-up returns were poor. A revised system is being used in fiscal year 1984. Preliminary returns offer the prospect of an increased percent return.

Employer Follow-Up; Postsecondary

The postsecondary vocational-technical centers were unable to provide the prescribed employer follow-up information. The centers will provide the results for 1984. The centers do have vocational advisory councils who evaluate and employ graduates of the centers. Council comments are very honest and receive favorable action. One advisory committee indicated that some of the lower performing completers with weak math skills did not perform on the job as well as anticipated. The center is now giving students with weak math skills incentive remedial instruction.

Other Follow-Up Efforts

In addition to the statewide follow-up system, individual schools make their own follow-up of vocational education completers. The Helena School District 1 makes a follow-up of the vocational graduates. In 1982, there were 632 graduating students. An unduplicate count of 310 students were vocational completers who received a six-page follow-up survey. Usable results were tabulated for 92 students. It is reasonable to believe that Helena graduates are typical of Montana schools with large enrollments. In school year 1982-83, there were 11,231 high school graduates from the 169 high school districts. The seven largest high school districts had 4,634 graduating students. It can be seen that high school enrollment in Montana is a very skewed distribution. The seven largest districts (Helena included) had 41 percent of the high school graduates.

The Helena data was collected in March 1983. The following are selected findings from their tabulated results.

The 92 students responding to the survey indicated that learning specific job skills and career exploration were the two most popular reasons for taking high school vocational training.

Those responding were asked to rate a series of statements regarding satisfaction with their vocational programs. The ratings were given a numerical value (in parenthesis): Very Satisfied (4); Satisfied (3); Dissatisfied (2); Very Dissatisfied (1). The average (mean) numerical value is shown next to the satisfaction statement.

<u>Statement</u>	<u>Mean</u>
Quality of instruction	3.3
Occupational information available	3.0
Help in finding a job after program completion	2.7
Counseling about careers	3.0

Another series of statements was offered the respondents regarding how well they felt the vocational program prepared them. A numerical value was assigned to the degree of preparation. The degree and values are: Very Well Prepared (4); Well Prepared (3); Not Well Prepared (2); Very Poorly Prepared (1).

<u>Statement</u>	<u>Mean</u>
Vocational or technical skills needed for job entry	3.1
Work habits (such as showing up on time)	3.4
Attitudes (such as desire to learn new things)	3.4
Ability to look for and obtain a job	3.1
Ability to get along with others	3.4
Overall effectiveness as an employee	3.2
Preparation for future training	3.2
Ability to cope with a changing technology	3.0
Pre-employment skills (such as preparing a job resume)	2.8
Ability to apply basic skills (like reading and math)	3.4

The survey instrument did permit multi-responses on continued education and employment. It appears that more than half the students obtained further education with about one quarter of the education related to their vocational training.

The survey instrument did permit multi-responses on continued education and employment. It appears that more than half the students obtained further education with about one quarter of the education highly related to their vocational training. An attempt to recalculate the data on employment was not made.

SECTION V

EVALUATION

Secondary

The Department of Vocational Education Services visited 24 secondary schools and made on-site evaluations of administrative and specific vocational projects. A revised Administration/Guidance and Counseling/Special Needs/Sex Equity evaluative instrument (VZ0382) was used.

The revised instrument, like its predecessors, had five parts: Goals/Planning, Needs Assessment, Implementation, Product and Evaluation. The revised instrument was shortened and eliminated the Likert scale. The new instrument merely asked if the required practice was in place or absent. If a practice was absent in a specific school, the school was informed in the verbal exit conference as well as the written report of the evaluation. Technical assistance was offered, especially during the exit conference. A tabulation of all the on-site instruments tends to indicate areas of weakness. A summary of these areas is shown below. The number in parenthesis is the number of schools of 24 with the problem.

1. Goals/Planning (10 questions)
Do teacher application forms and job announcements include EEO policy statements? (8)
Do student and staff handbooks include a nondiscrimination policy statement on admission and employment? (7)
2. Needs Assessment (9 questions)
Is employment data gathered? (7)
Are occupational skills identified? (7)
Are budget needs and priorities listed in a long-range plan (5-year) which reflects program goals? (7)
3. Implementation (16 questions)
Is on-the-job cooperative training related to classroom instruction? (9)
4. Product (9 questions)
Are provisions made for job placement and annual follow-up of program completers, regardless of sex? (7)
5. Evaluation (6 questions)
Is there a systematic, ongoing program evaluation plan developed and in use? (7)
Are the results of the evaluation and follow-up used as a basis to revise and improve the program? (9)
Do the evaluation procedures and techniques used provide necessary information? (9)
Does the program evaluation have broad-based involvement (advisory committee, administration, teachers, students)?

The subject matter specialists listed on page II-10 used an evaluative instrument to primarily measure program quality and safety. The appropriate subject matter specialist made visits to those schools having the subject matter area represented. The verbal exit conference and the written evaluation to the school administrators listed the subject matter specialist's findings. A follow-up is made to see if the deficiencies have been corrected.

The following listing reflects the findings of some specialists.

School	State and/or Federal Deficiency Identified	Response/Action Taken
<u>Agriculture</u>		
Cascade	No deficiency	
Powell Co. HS	1. Need female representation on the Vocational Agriculture Advisory Committee. 2. Install flashback arrestors on oxy-acetylene equipment 3. Install re-start protection devices on the power equipment	Three female representatives added. Corrected Corrected
Beaverhead Co HS	1. No recent needs assessment available.	Developing instruments--Use in 1984.
Park Co HS	1. No student follow-up. 2. Exceed the 60:1 student to teacher ratio	Now participating in the state follow-up system. Corrected
Polson HS	1. Formalize the use of the advisory committee. 2. A Native American should be represented on the advisory committee.	Advisory committee activated. Corrected
Ronan HS	1. Secure the oxy-acetylene tanks. 2. Relocate flashback arrestors on the oxy-acetylene equipment. 3. Repair the welding exhaust system. 4. Develop curriculum to include scope, sequence and measurable objectives.	Corrected Corrected Not corrected; funding pending. Corrected
Havre HS	1. There is no formal follow-up of DE graduates.	Participates in the state follow-up system on a regional basis.
<u>Distributive Education</u>		
Helena HS	1. The DE teacher-coordinator's co-op class load exceeds the state standard of 60 students.	The DE instructor will coordinate only 60 students in grades 11-12 enrolled in DE.
Capital HS	1. The DE teacher-coordinator's co-op class load exceeds the state standard of 60 students.	The DE instructor will coordinate only grades 11-12 enrolled in DE.

School	State and/or Federal Deficiency Identified	Response/Action Taken
Libby HS	1. The advisory committee should be involved in an annual program evaluation.	At the DE advisory committee meetings, members will provide input toward a program evaluation.
Livingston HS	1. No minutes of advisory committee meetings are on file. 2. The advisory committee is not active in program development.	Minutes of the advisory committee meetings have been submitted and are on file. The advisory committee is working jointly with job service and other vo-ed advisory committee chairs.
Twin Bridges HS	1. Program objectives not written in measurable terms.	Corrected
<u>Home Economics</u> Anaconda HS	No deficiency	
Bigfork HS	1. Need to include Family Life Education in the curriculum.	Corrected
Boulder HS	No deficiency	
Corvallis HS	1. Three years of Home Economics need to be offered.	Corrected
Powell Co HS	1. No advisory committee.	No action taken.
Beaverhead Co HS	1. Need to include Family Life Education in the curriculum.	Corrected
Eureka HS	No deficiency	
Hamilton HS	No advisory committee.	Corrected
Havre HS	No deficiency	
Helena HS	No deficiency	
Hot Springs	No deficiency	
Libby HS	1. Advisory committee needs to be activated.	Corrected

School	State and/or Federal Deficiency Identified	Response/Action Taken
Livingston	No deficiency	
Polson HS	No deficiency	
St. Ignatius HS	No advisory committee.	Corrected
Three Forks HS	1. Three years of Home Economics need to be offered.	Corrected
Townsend HS	1. Need to activate advisory committee.	Pending
	2. Need to include Family Life Education in the curriculum.	Pending
Twin Bridges HS	No deficiency	
White Sulphur Springs HS	No deficiency	
<u>Industrial Arts, Trades and Industry</u>		
Anaconda HS	1. Class size exceeds maximum (carpentry).	Corrected
	2. Drafting instructor needs to submit approval form.	Submitted
	3. Specific competencies to be learned need identification.	Being developed
Bigfork HS	1. Introductory activities needed in four clusters.	Corrected
	2. Instructor needs required workshop	None: probation
	3. Integration of personal develop- ment activities needed.	Planning
Capital HS	1. Two instructors need a required teacher workshop.	Corrected
	2. Integration of personal develop- ment activities needed.	Planning
Helena HS	1. Three instructors need required teacher workshop.	Corrected
	2. Four clusters need to be intro- duced.	Corrected
Eureka HS	No deficiency	
Hamilton HS	No deficiency	

School	State and/or Federal Deficiency Identified	Response/Action Taken
Havre HS	1. Four clusters need to be introduced.	Corrected
Hot Springs HS	1. Four clusters need to be introduced. 2. Carpentry content not appropriate. 3. Full year needed for metals and power. 4. Instructor needs teacher workshop 5. Program lacking minimal quality.	Not implemented; 99.0401 not approved. Recategorized Restructured Corrected Probation
Libby HS	No deficiency	
Livingston HS	No deficiency	
Missoula Big Sky	1. Update philosophy and objectives. 2. Occupational information must be included. 3. Advisory committee needs establishment.	Corrected Working to implement Probation FY 84
Missoula Hellgate	1. Excessive noise levels in shops. 2. Competency lists need development. 3. Occupational information must be included.	Working to resolve Effort underway Working to implement
Polson HS	1. Better follow-up information needed. 2. One instructor needs IA workshop. 3. Measurable objectives needed.	Corrected Corrected Developing
St. Ignatius HS	1. Basic courses needed to insure proper sequence. 2. Questionable quality in program conduct exists.	Restructuring Probation
<u>Business and Office</u> Anaconda HS	1. Update equipment. 2. Need to activate the Advisory Committee.	Long-range equipment plans are being developed. Project placed on probation.
Bigfork HS	1. Advisory Committee members should represent the occupation.	As new members are appointed, the occupation is being represented.

School	State and/or Federal Deficiency Identified	Response/Action Taken
Boulder HS	1. Advisory Committee should be more active; written minutes missing.	Minutes are kept; committee active.
Cascade HS	1. Written minutes of Advisory Committee should be kept. 2. Furniture should be rearranged to avoid safety hazards.	The school is developing plans to address the recommendation in FY84.
Corvallis HS	1. Electrical cords across walkway present a safety hazard. 2. Update equipment and curriculum.	Project on probation until areas are addressed.
Deer Lodge HS	1. No capstone course is present.	Dropped program.
Dillon HS	No deficiency.	
Eureka HS	1. Update equipment & curriculum. 2. Electrical cords across walkway present a safety hazard.	Long-range plans are being developed to address curriculum and equipment needs. The school is looking for ways to solve the safety hazard.
Hamilton HS	1. Need to establish an advisory committee. 2. Update equipment and curriculum.	Advisory committee established. Long-range plan being developed.
Havre HS	1. Safety hazard from electrical wiring.	Solutions are being developed.
Helena/Capital HS	No deficiency.	
Hot Springs HS	1. Adjustable furniture when needed.	Project on probation because this and several areas were not addressed.
Libby HS	1. Update equipment and curriculum.	Long-range plans are being developed.
Livingston HS	No deficiency.	
Missoula HS	1. Information not available.	
Polson HS	No deficiency.	
Three Forks HS	1. More electrical outlets needed. 2. Activate advisory committee.	Project placed on probation.
Townsend HS	1. Need active advisory committee.	Project placed on probation.

Postsecondary

The Montana system of postsecondary evaluation is composed of annual self-evaluations by each of the five vocational-technical centers. Each program (by CIP number) within each center completes the 10-page evaluation instrument (PA 82-5). The four parts of the instrument are listed below:

Part I--Statistical Information

1. Enrollments
2. Withdrawals, partial completers and graduates
3. Placement
4. Occupational needs assessment

Part II--Program Review Questionnaire

1. Administration
2. Advisory committees
3. Facilities and equipment
4. Curriculum
5. Materials, supplies and resources
6. Student services
7. Public relations

Part III--Financial Support

Part IV--Recommendations

The subject matter specialist of the Department of Vocational Education Services reviews the self-evaluation instruments sent to the department. Telephone and/or on-site technical assistance is given to those programs with a deficiency. In school year 1983-84, all five centers will receive thorough on-site evaluations.

14th Annual Report of the State Advisory Council for Vocational Education

Recommendations from the Montana Advisory Council for Vocational Education to the Office of Public Instruction were made in the 14th Annual Report (Oct. 1983), page 8. These recommendations are based on the observations and research of the Council during the school year 1982-83.

Recommendation 1:

Recommends to the Office of Public Instruction an increase in the education networking and inservice opportunities for vocational guidance counselors and those counselors from the employment service community.

Response:

The Department of Vocational Education Services, in cooperation with other agencies, provided inservice training for vocational counselors. The State Occupational Information Coordinating Committee held a "Vocational Preparation and Occupations" workshop on May 19 and 20, 1983, in Helena. The workshop presenter was John Van Zant (NOICC). Twenty-seven persons attended the workshop.

In fiscal year 1984, the Department of Vocational Education Services awarded a Program Improvement grant titled "Career Information Dissemination." There were 11 workshops with the primary participants being secondary counselors.

Each of the workshops was in a different community, thus providing easy access to the counselors.

The Montana Career Information System held five one-day workshops on Career Development. The workshops were held in February and March 1984 in Helena, Missoula, Poplar, Havre and Billings. Participants were school counselors, Employment Security counselors and labor union representatives. Vocational Education Act funds partially support the Montana Career Information System.

Six workshops were organized and funded by the Department of Vocational Education Services titled "Self-Directed Job Search." The presenter was Jennifer Carter. There was a total of about 200 persons attending the workshops held in Great Falls, Sidney, Billings, Butte, Missoula and Lewistown.

The Department of Vocational Education Services, State Occupational Coordinating Committee and Montana Department of Labor and Industry cooperatively sponsored four workshops titled "Improved Career Decision Making." There were a total of 51 participants.

Recommendation 2:

Recommends a continued effort to upgrade the experience level of vocational students and vocational instructors with the use and application of computers in their respective program areas.

Response:

The Office of Public Instruction conducts an annual survey on computer numbers and usage in the secondary schools. The schools have made dramatic increases in the number of computers. In the school year 1981-82, there were 582 computers; in the 1982-83 school year there were 1,746 computers, and in the 1983-84 school year there were 3,270 computers. The secondary business education programs in grades 10-12 had 113 computers dedicated to instruction for the school year 1983-84. The vocational agriculture program in grades 10-12 had 41 computers available for instruction. Note in the appendix that project T-840, 45 teachers participated in the week-long workshop, "Development of a Learning Model to Improve the Computer Literacy of Montana Vocational Educators and to Improve the Computer Literacy of Montana Vocational Educators and to Facilitate the Utilization of Computers in Vocational Classrooms."

According to the November/December 1983 issue of Electronic Learning, the state of Montana ranked second in having the lowest number of students per computer in the United States. From the Department of Vocational Education Services on-site visitations, it appears that Montana vocational education has its proportionate share of computers in secondary schools.

Recommendation 3:

Recommends that the Office of Public Instruction provide leadership to local advisory committees to promote the much needed local partnership between vocational education and business, industry, and labor.

Response:

The Office of Public Instruction has funded a Research-Program Improvement project to Eco Northwest Ltd. The purpose of the grant is to demonstrate in three schools a model vocational needs assessment. The procedures will give advisory committees a tested method to assess employment opportunities in their areas. Committee findings will necessitate working with local businesses.

The on-site state staff evaluation team members always recommend the services of the Montana Advisory Council for Vocational Education if problems are found in the school. The Department of Vocational Education Services provided a list of 44 schools to the State Advisory Council that were determined to have need for technical assistance. Data is not available to determine if the schools sought direct assistance from the State Advisory Council.

The chairpersons of the JTPA Balance of State and Concentrated Employment Program areas are ex officio members of the 1985 Vocational Education Planning Council. Their suggestions are welcomed by the Council and exhibit an extended partnership with private industry councils.

Recommendation 4:

Recommends that the Office of Public Instruction consider increasing the number of quality vocational cooperative education programs in the state to assure the students an experience in on-the-job training.

Response:

The Department of Vocational Education Services submitted to the Montana Department of Labor and Industry a grant request to be funded with Job Training Partnership Act (JTPA) funds. The June 30, 1983 request sought training for 100 senior students in cooperative education programs. The programs were job specific and/or multi-occupation cooperative education programs. The proposal was rejected.

The development of cooperative education programs depends greatly on the local school districts and the training opportunities available in the communities. Based on a class schedule analysis made by the office statistician, cooperative education programs are found in high schools with larger enrollments. Of the 1,256 secondary distributive education students in the 1981-82 school year, 97 percent were in high schools with enrollments over 300 students.

Recommendation 5:

Recommends that the Office of Public Instruction increase the coordination of inservice education for vocational instructors through cooperative efforts with business and industry training programs.

Response:

In fiscal year 1983, each of the five vocational-technical centers was awarded an \$800 grant to promote inservice training of instructors with industry. Twenty-five instructors participated in the industry training. Three instructors went out of the state for industry updates in: new techniques on heating, ventilation and air conditioning; diesel fuel injection; dental radiology.

Recommendation 6:

Recommends to the Office of Public Instruction that a continued effort to expand public awareness of vocational education be promoted by using state and local media.

Response:

The Office of Public Instruction has not had extensive coverage of vocational education on state and local media. Historically, the office has made spot announcements from the American Vocational Association available to the television stations during Vocational Education Week.

The office did have television coverage of the Education Fair held in Great Falls on March 7-8, 1983. Secondary and postsecondary vocational programs were represented at the Education Fair which had an attendance of over 400 persons.

The Department of Vocational Education Services made a guidance program improvement grant award to Helena Vocational-Technical Center. All five centers cooperated in the "Career Information Dissemination" grant. A slide tape program was developed. The first public presentation was made in December, 1983, with many laudable comments received.

The office has a newspaper clipping service. Documentation of local vocational program newspaper coverage is available.

The Office of Public Instruction and the Commissioner of Higher Education jointly sponsored a publication for the general public. The fold-out publication was titled Montana Public Postsecondary Vocational Technical Education 1983-84. The publication had a distribution of 12,000 copies. The publication showed the vocational program offerings at the five vocational-technical centers, the three community colleges and Northern Montana College.

Program improvement funds were used to produce 750 copies of the Directory of Montana Postsecondary Vocational-Technical Education. The 138-page publication describes Montana postsecondary programs, nature of work, job opportunities, course content and others. The publication was distributed to junior and senior high school and postsecondary counselors; high school libraries; Vocational Rehabilitation, Department of Labor and Industry; World of Work programs; State Corrections; and Women in Transition programs.

In a concerted effort to inform and impact employers in Montana and adjacent states, 4,000 flyers entitled "We Have Employees For You" were mailed. Flyers specified programs of training available, contact persons and a personalized message from the State Superintendent.

The Montana Advisory Council for Vocational Education also made five recommendations for improving and strengthening the on-site evaluation process (page 17).

Recommendation 1:

Continue the on-site visitations process utilizing a full day for the evaluation process with each school.

Response:

The schools in fiscal year 84 are receiving a full day visitation except schools with large enrollments, such as Great Falls, which received a two-day evaluation.

Recommendation 2:

Reevaluate the total procedures used with guidance/counseling and special needs. Improve coordination, follow-up and materials used.

Response:

The previous evaluative instrument (VZ3082) had 50 items. The revised instrument (VZ3083) has 33 items. In addition to the reduction of items in the evaluative instrument, clarity of the statement was accomplished. Staff and outside personnel were used to develop the new instrument. Follow-up procedures based on the on-site evaluation have been revised. The new procedures give the school great flexibility in how and when they respond. New materials have been developed and are available in fiscal year 1984.

Recommendation 3:

Reevaluate and revise forms used for the evaluation process. Try to simplify forms and provide explicit directions for filling them out.

Response:

On June 8, 1983, secondary vocational teachers, vocational administrators and school officials met with the professional staff of the Department of Vocational Education Services. The meeting was not limited to the revision of the evaluative instruments. As a result of the meeting it is estimated that there was a 60 percent reduction in paper work. For example, the annual program application was reduced from five pages to one page.

Recommendation 4:

Encourage the development of a closer relationship between business and industry and vocational education at the local level by providing technical assistance regarding the use of local advisory committees to both local committee members and vocational teachers.

Response:

The on-site evaluations provide the best opportunity for the encouragement of a closer relationship between business and industry. The results of the 1983 evaluations are shown in Section I.

The Department of Vocational Education Services promotes a closer relationship between business and industry by having two persons from the Private Industry Council (PIC) serve as ex officio members on the Planning Council for Vocational Education. In addition, the assistant superintendent of the Department of Vocational Education Services serves on the Job Training Coordinating Council.

Recommendation 5:

Revise and develop the evaluation process to be a procedure where program quality and the goal of providing technical assistance to teachers and administrators is an important focus rather than an evaluation where compliance is the major concern.

Response:

Both federal and state rules and regulations require that compliance must be evaluated. In 1976 the Department of Vocational Education Services had a staff of 25 FTE (Full Time Equivalent), in 1981 a staff of 21.25 FTE, and in 1983 a staff of 16.5 FTE. The management of the Office of Public Instruction agrees with the philosophy of increased technical assistance; however, current staffing demands emphasis on the legal requirement. Since late 1983, the professional staff members have been recording their technical assistance contacts. A glance at one staff member's log of a month shows 34 technical assistance telephone contacts.

The team leader of the on-site evaluation estimates that about 50 percent of the time is spent in technical assistance. If a safety problem is found, the team member tells the teacher how the problem may be solved. By subsequent observations, it is noticed that the schools generally follow the suggestions.

Exemplary Programs

In fiscal year 1983 there were two exemplary projects, namely E-502 and E-503. The Appendix A gives the title and some of the accomplishments of these two projects. The project E-502 Marketing/Distributive/Cooperative Education in Great Falls is continuing without federal funds. The project success is reflected in the newspaper article from the September 29, 1983 issue of "Stampede" in Appendix B.

The exemplary project E-503 Task-Oriented Computer-Assisted Drafting and Electronics was nominated for the "Secretary's Outstanding Award for Vocational Education" and received an on-site evaluation. In fiscal year 1984, the project received additional federal support to enhance and refine the system. In 1984, the project began preliminary testing of the system exportability. The project is continuing with strong financial support from the local school district.

APPENDIX A

RESEARCH

Title: Follow-Up Employment Information on Montana Vocational Education Students
Number: Contract
Project Director: Richard Dodge
Institution: Eco Northwest, Ltd.
Proposed and Results: The project was to survey at least 200 former secondary and postsecondary vocational students with the numbers being equally distributed to each school year (1980-81), (1981-82). A very high number of the students were contacted and Vocational Education Data System (VEDS) information was obtained. The results were used for the appropriate VEDS reports. The results were compared with known parameters using Chi Square. Nearly all statistics were within acceptable limits. The 1981-82 students and employer findings were also reported in the Montana Fiscal Year 1982 Accountability Report.

Title: Development of Curriculum for Wage-Earning Home Economics Programs
Number: R411
Project Director: Dr. Angelina Parsons
Institution: Montana State University
Proposed and Results: The project was to develop a wage-earning home economics curriculum applicable to male and female students which would assist teachers with preparatory and supplemental wage-earning home economics programs. A review of literature and the development of a needs assessment was conducted. The findings were validated by 25 home economics teachers. A 70-page publication titled Food Service Occupations in Montana--Scope and Sequence in Wage-Earning Home Economics was produced and distributed to Montana teachers.

CURRICULUM DEVELOPMENT

Title: Vo-Ag Core Curriculum Development
Number: C609
Project Director: Dr. Douglas Bishop
Institution: Montana State University
Proposed and Results: The project was to review, refine, publish and distribute a revised two-year core curriculum free of sex bias and stereotyping. The 79-page publication Core Curriculum for Vocational Agriculture Education was distributed to each vocational program within the state and others. To date, over 100 copies have been distributed. Evaluation of the publication is being made at the Winter Fair Judging Contest and the 1983-84 State FFA Convention.

Title: Montana Industrial Education Curriculum Planning Project
Number: C611
Project Director: Dr. Doug Polette
Institution: Montana State University
Proposed and Results: The project was to obtain curricular materials from other states and sources. A review panel identified competencies and suggested a curricular format. Various workshops were held throughout the state to review materials and make suggestions on format. All 50 states were contacted about

the materials they use. Usable materials were obtained from 26 states. Model lists of instructional competencies were developed for seven areas. The format selected will be by grade levels and by size of school.

Title: Development of a Model to Support Curriculum and Program Implementation Which Addresses Priority Issues Impacting Upon Vocational Home Economics in Montana

Number: C612

Project Director: Dr. Chris Southers

Institution: University of Montana

Proposed and Results: Eleven home economics teachers, two teacher educators and the home economics specialist from the Office of Public Instruction participated in a task force. The task force developed the "Montana Home Economics Teachers' Network," which facilitates communication with 11 geographic areas of Montana. The task force actions were expedited through the consultive skills of Nancy Johnson. Formal and informal evaluation of the results were satisfactory.

EXEMPLARY

Title: Marketing/Distributive/Cooperative Education

Number: E502

Project Director: Willard Weaver

Institution: Great Falls High School

Proposed and Results: The 240 students in Marketing/Distributive and Cooperative Education set up and operated a real store within the high school. The project also obtained a computer to assist with cost accounting and management decisions. The student store replaced the vending machines which were a source of controversy. All were pleased with the store learning situation and financial return. Both the participating students and student government each received 9 percent of the gross; cost of goods was 62.7 percent; student salaries were 17.3 percent; 2.0 percent covered the business losses.

Title: Task-Oriented Computer-Assisted Drafting and Electronics

Number: E503

Project Director: H. Lee Holmes, Paul Dorrance

Institution: Helena High School

Proposed and Results: The project would develop a competency-based, task-oriented, computer-assisted teaching program for use in drafting and electronics. Some of the components are: assignment sheets, work sheets, tests, and grades. There were 93 drafting students and 79 electronic students who participated in this exemplary competency based program. The project was nominated for the "Secretary's Awards for Outstanding Vocational Education Program." The regional office of the Department of Education made a two-day on-site evaluation of the program.

EMERGENCY AND EMERGING

Title: Retraining Boilermakers in Heliarc Welding
Number: EE06
Project Director: Harry Freebourn
Institution: Butte Vocational-Technical Center
Proposed and Results: The Butte Vo-Tech Center in cooperation with the Butte Boilermaker Union Local 130, developed a 60-hour update course with emphasis on heliarc welding. The updated skills would enhance the members' employability in the Colstrip, Montana area. Fourteen written evaluations were received--all of which were favorable to the course and the instruction.

GUIDANCE

Title: Project Transition
Number: G709
Project Director: James Graham
Institution: Butte Vocational-Technical Center
Proposed and Results: The project is to change the present student registration, evaluation, Vocational Education Data System information, follow-up and placement information from the NCR 101 to IBM System 38. The first phase has been programmed for student enrollment. Other phases are pending.

Title: Montana Career Information System/Occupational Data System
Number: G711
Project Director: M. Sumyyah Bilal
Institution: Office of the Commissioner of Higher Education
Proposed and Results: The original proposal was modified because of limited funds. Nearly all of the funds were used for telephone service to the Montana Career Information System (MCIS) sites. Montana high schools would telephone the MCIS computer sites using computer terminals and telephone communications. High school students would access the MCIS computer and use it in an interactive mode. Students could obtain labor supply/demand information, educational requirements, and typical salaries.

Title: Computerized Student Follow-up Service
Number: G712
Project Director: Alex Capdeville
Institution: Helena Vocational-Technical Center
Proposed and Results: The objective of the project was to develop a student follow-up computer program. The computer program, by means of a microcomputer, would interface with the Center's IBM System 34. The program and system were used with 1982-83 Center graduates. A student follow-up report was sent to the Office of Public Instruction.

Title: A Research and Follow-up Study

Number: G713

Project Director: George Martin

Institution: Missoula Vocational-Technical Center

Proposed and Results: The project sought to identify those factors that interfered with students' performance in the vocational program. The project also developed remedial assistance for the students. A detailed report of the findings was made to the Office of Public Instruction. Academic deficiencies were found to be the primary reason that students left training prior to completion or employment in their areas of training. Remedial actions were taken and appear to be effective.

Title: Automation of Student Records, Correspondence and Information
Dissemination

Number: G714

Project Director: Carl Spinti

Institution: Great Falls Vocational-Technical Center

Proposed and Results: The three objectives are: eliminate hand collating of catalogs; automate form letters; and automate retrieval of training and career information on students. A used 200-bin collator was purchased and is operational. An IBM Displaywriter was purchased and permits form letters to be sent to students in a more efficient manner. An RP555 microfilm reader/printer was purchased. Student records (transcripts) can be quickly located and hard copies can be made. This new system saves storage space.

Title: Computerized Services

Number: G715

Project Director: Roger Bauer and Jeff Dietz

Institution: Billings Vocational-Technical Center

Proposed and Results: The project was to develop a computerized management information system for student services. An AB Dick Magna 111 information processing system was purchased. The software and implementation have not been completed as of early 1984.

TEACHER DEVELOPMENT PROJECTS

Title: Inservice Education for Montana First-Year Vocational Education
Teachers--A Joint Effort

Number: T826A

Project Director: Dr. Douglas Bishop

Institution: Montana State University

Proposed and Results: A one-day workshop was held in Helena with 16 first-year teachers. The workshop distributed a variety of materials and provided resource people to answer questions and concerns. In addition, faculty members from Montana State University made on-site visits or telephone calls to these new teachers. Thirteen first-year teachers were served by the faculty members representing four vocational program areas.

Title: State Vocational Education Leadership Conference

Number: T830

Project Director: Donald Koeppen

Institution: University of Montana

Proposed and Results: The conference was designed to enhance Montana vocational educators' general knowledge of the latest developments in vocational education at the international, national and state levels. In addition, participants obtained current information relating to their subject matter interests. There were 256 persons attending the leadership conference held in Missoula on October 20-22, 1982.

Title: School Law

Number: T831

Project Director: John Voorhis

Institution: Office of Public Instruction

Proposed and Results: The staff attorney for the Office of Public Instruction prepared the course outline and taught many of the sessions. Sixteen persons attended the presentations and each was required to write a law paper relating to their office responsibilities. One of the law papers was entitled "Shop Safety" and had a Montana distribution of 550 copies.

Title: Preservice and Inservice Agriculture Teacher Education Program

Number: T834

Project Director: Van Shelhamer

Institution: Montana State University

Proposed and Results: A variety of preservice and inservice training sessions were held for vocational agriculture teachers. A travel seminar of nine teachers visited 11 vocational agriculture programs. A one-week update conference on the latest technologies was held for 55 teachers. Four district leadership schools were conducted for FFA officers. A 30-hour and three 10-hour training programs on microcomputers were conducted for a total of 67 teachers. "Agriculture and Industrial Education" newsletter was distributed to 700 teachers three times during the school year.

Title: Teacher Development Funding

Number: T835

Project Director: Harry Freebourn

Institution: Butte Vocational-Technical Center

Proposed and Results: The project was to provide two Butte Vo-Tech instructors with experience on microcomputers especially as technology relates to Trades and Industrial programs. The experience included the use of various pieces of computer hardware and software and methods of classroom implementation. Two instructors attended the June 13-17 workshop "Computers in Vocational Education" in Missoula. Informal evaluations proved the workshop to be very positive.

Title: Vocational Agriculture Student Teacher Supervision

Number: T836

Project Director: Douglas Bishop

Institution: Montana State University

Proposed and Results: The project would provide student teachers of vocational

agriculture with two on-site visits during their student teaching experience. Thirteen student teachers were visited twice each with each visit at least three hours in duration. The college supervisor evaluations plus supervising teacher evaluations showed the visitations to be effective.

Title: Impact: Vocational Education Personnel Development

Number: T838

Project Director: DeLoy Denning

Institution: Missoula County Superintendent of Schools

Proposed and Results: The project made funds available to vocational educators to upgrade professional and teaching skills. Twenty-five mini-grants were operated which directly or indirectly benefitted 1,476 participants. An example of indirect benefit is one instructor receiving industry upgrading instruction and returning to pass the information on to his professional peers.

Title: Microcomputers in Education Workshop

Number: T839

Project Director: Dan Dolan

Institution: Office of Public Instruction

Proposed and Results: The workshop was designed to cover a variety of aspects for using computers in education. Topics included programming languages BASIC and LOGO, review and evaluation of software, use of word processing, the computer as a management tool, data retrieval and access via telephone. There were 21 participants at the August 16-20, 1982 workshop.

Title: Development of a Learning Model to Improve the Computer Literacy of Montana Vocational Educators and to Facilitate the Utilization of Computers in Vocational Classrooms

Number: T840

Project Director: Chris Southers

Institution: University of Montana

Proposed and Results: A week-long summer inservice training for about 40 vocational teachers was planned. The training permitted "hands on" experience with computers and software appropriate for their teaching assignments. Of the 75 workshop applicants, 45 participants were selected. They had access to 28 computers for their "hands on" experience. Each participant evaluated at least two instructional computer software programs. A follow-up evaluation of the workshop was made in November. One of the findings was that only 4 of the 45 participants had not used the computer as a teaching tool during the fall quarter.

Title: Workshop for Updating Co-op Personnel

Number: T841

Project Director: Ron Harris

Institution: Montana State University

Proposed and Results: A workshop was conducted to provide an updating of standards, rules, guidelines and procedures for conducting co-op education program components. Four students attended the workshop. Participant evaluations of the workshop were received.

Title: Industrial Occupation/Youth Organization Workshops

Number: T842

Project Directors: Doug Polette and Jere Wheatley

Institution: Montana State University

Proposed and Results: The project was to conduct six regional workshops throughout the state for industrial education instructors, school counselors and principals for the purpose of providing information on establishing and operating VICA programs and implementing industrial occupational information into the industrial education classroom instruction. Procedural materials and visual displays were developed for the participants to use in their schools. There were seven workshop sites with Missoula being added. Simultaneously at each site there were two separate workshops; namely, Industrial Occupations and Youth Organization (VICA). There was a total of 144 teachers and administrators at the 14 workshops.

Title: A Plan to Provide Supervisory Assistance to Student Teachers and Cooperating Teachers, and to Assist in Leadership Development Activities at the State FHA Meeting

Number: T843

Project Director: Chris Southers

Institution: University of Montana

Proposed and Results: The project provided visitations by the home economics teacher educator to student teaching centers used by the University of Montana. The project director also provided leadership at the Montana Association of Future Homemakers of America (FHA) convention. The ten student teachers were visited at least twice during their student teaching experiences. Informal feedback from the student teachers and their supervising teachers stated that the visits were beneficial. Leadership was provided to the FHA convention held March 23-25, 1983. Some activities were helping the state FHA officers with their plans and serving on committees including the committee to interview and select Montana's National Officer candidate.

Title: Development of Vocational Home Economics Education Personnel at the Preservice and Inservice Level

Number: T844

Project Director: Angelina Parsons

Institution: Montana State University

Proposed and Results: The project will provide home economics education majors with an opportunity to visit home economics programs. Another objective was to provide technical assistance to FHA/HERO chapter advisors in using the "Montana FHA/HERO Proficiency Handbook." Thirteen prospective teachers visited four educational programs in the Billings area. Those participating in the May 6, 1983 field trip completed evaluation forms and found the visits to be beneficial. The project director provided technical assistance to nine FHA/HERO chapter advisors through a videotape, telephone calls and two Saturday meetings.

Title: Inservice Industry Workshop

Number: T845

Project Director: Roger Bauer

Institution: Billings Vocational-Technical Center

Proposed and Results: The project was to provide one instructor with training in the new technology of heating ventilation and air conditioning. The instructor attended a two-week training course at the York Technical Institute in Pennsylvania. Training was on 100-ton centrifugal compressors, up to 25-ton air conditioning compressors, solid state electrical controls, reading schematics, pneumatic controls and others. Information and materials the instructor obtained have been incorporated in his classes in Billings.

Title: Association of Diesel Specialists Seminar

Number: T846

Project Director: Alex Capdeville

Institution: Helena Vocational-Technical Center

Proposed and Results: The project was to provide the opportunity for a center instructor to attend a seminar designed exclusively for diesel mechanics instructors. The instructor from the Helena Vocational-Technical center attended the seminar at the Oregon Institute of Technology in Klamath Falls, Oregon, July 23 to August 6, 1983. The instructor has incorporated his updated technology in his own presentations and demonstrations.

Title: Dental Radiology Update

Number: T847

Project Director: Carl Spinti

Institution: Great Falls Vocational-Technical Center

Proposed and Results: The project provided an opportunity for one instructor from Great Falls Vocational-Technical Center to attend an update seminar in dental radiology. The instructor attended the update seminar at the University of North Carolina. Seminar topics included radiation physics, biology, radiographic technique, safety and curriculum design. The new knowledge and skills were not only shared with the instructor's classes but with Montana professional associations. Attendance at the seminar also produced renewed enthusiasm.

APPENDIX B

Store replaces machine sales

Opening the second day of school this year, the Distributive Education school store has replaced the vending machines here at CMR.

The school store boasts a greater variety than the machines, selling pop, fruit juice, candy, popcorn, and school supplies.

So far the store is beating out the vending machines, bringing in an average of \$330 a day. Mr. David Stukey, Distributive

Education teacher, said, "The reason the store is set up is because now the school is benefitting from the money made. A great proportion of the money is staying at the school." Stukey added that a very tight budget, drawn up last year, is now being applied to the store.

Both the student government and D.E. are benefitting from the gross sales as each received nine percent, cost of the goods takes up to 62.7 percent of the

money while student salaries get 17.3 percent, and the remaining two percent is to cover losses.

Seniors Bryon Buchanan and Lynetta Winkleman were hired to work the store. Winkleman opens the store at 8 a.m. and runs it until after fourth period when Buchanan runs it until closing at 3:45 p.m. Each has four regular class periods to attend. "It's a lot of work and the kids hassle you, but it's fun and a good experience. We are open to any suggestions on improvement of merchandise," Winkleman said.

During the first week of the store's business, some problems occurred. Stukey said, "We would ask the students to please bear with us the first month or two until things get running smoothly." The first couple of days, the store sold donuts but some clubs around the school complained because that used to be their only fund raising activity. "Our purpose is not to step on anyone's toes, our purpose is to bring more money into the school," Stukey said.

Neither gum nor sunflower seeds will be sold because of the mess. "The store will be operated on the same basis as the machines," Stukey said. "If garbage is left lying around, the store will be shut down."

The money to set up the store was received from the state government. Twenty schools applied for portions of over \$600 available in the Exemplary Vocational Improvement Project Fund. CMR received all the money available and the local school district equalled the amount, Stukey said.



BUSY AS A BEE — Working hard to get the popcorn ready for the DECA store, senior Lynette Winkleman works in the morning hours at the store as a manager. The DECA store is replacing the vending machines with more of the money staying in the school, according to Dave Stukey, DECA adviser. (Photo by Michelle Green)

APPENDIX C

SUMMARY OF 473 CETA COMPLETED WORLD OF WORK PARTICIPANTS
FY 1983 OPINIONNAIRES

VALUE	1 STRONGLY AGREE	2 AGREE	3 DISAGREE	4 STRONGLY DISAGREE
1	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.4		
2	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.5		
3	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.6		
4	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.2		
5	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.3		
6	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.7		
7	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.3		
8	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.4		
9	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.4		
10	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.7		
11	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.9		
12	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.6		
13	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.5		
14	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.8		
15	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.3		
16	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.6		
17	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.3		
18	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.3		
19	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.7		
20	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.3		
21	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.3		
22	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	1.2		
STATEMENT NUMBER				

WORLD OF WORK EVALUATION FORM

Date _____

Directions: Circle the number following each statement that best represents your opinion.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Disagree
- 4 = Strongly Disagree

THE WORLD OF WORK PROGRAM HAS TAUGHT ME:

- | | | | | |
|--|---|---|---|---|
| 1. to know what kinds of working conditions I prefer and would be happy with. | 1 | 2 | 3 | 4 |
| 2. to act maturely and responsibly when dealing with other people and when handling touchy situations. | 1 | 2 | 3 | 4 |
| 3. some of the ways to hold a job and advance on a job. | 1 | 2 | 3 | 4 |
| 4. how to prepare for an interview--what to do before the interview actually starts. | 1 | 2 | 3 | 4 |
| 5. how to come across as interested, organized, and capable when I am interviewing for jobs or for information. | 1 | 2 | 3 | 4 |
| 6. new listening skills. | 1 | 2 | 3 | 4 |
| 7. how to put a good resume together and what information to include. | 1 | 2 | 3 | 4 |
| 8. how and when to use a resume effectively. | 1 | 2 | 3 | 4 |
| 9. how to complete job applications. | 1 | 2 | 3 | 4 |
| 10. how to uncover and follow up leads on unadvertised jobs. | 1 | 2 | 3 | 4 |
| 11. how to work with agencies and use the services that help people match up with advertised or listed job vacancies. | 1 | 2 | 3 | 4 |
| 12. how to meet new people and keep in touch with my circle of contacts so I can be aware of new developments and opportunities. | 1 | 2 | 3 | 4 |
| 13. how to handle information--getting interviews that can develop into job leads for me. | 1 | 2 | 3 | 4 |
| 14. how to handle my frustrations without hurting others or damaging my own job or career. | 1 | 2 | 3 | 4 |

ATTENDING THE WORLD OF WORK:

15. has helped me feel better about myself.	1	2	3	4
16. has helped me get along better with other people.	1	2	3	4
17. has given me a more positive outlook on my ability.	1	2	3	4
18. has helped me gain a better understanding of the strengths I possess that an employer would want.	1	2	3	4
19. has helped me to be sensitive to others' feelings and opinions, even if I disagree with them.	1	2	3	4
20. has given me practice in handling job interviews.	1	2	3	4
21. has helped me complete and improve my resume.	1	2	3	4
22. has been helpful to me.	1	2	3	4

COMMENTS: _____

APPENDIX D

SPECIAL NEEDS

A wage earning home economics program was conducted for 14 handicapped students who were to graduate from high school. An occupational survey was conducted to determine employment for the youth in this tourist oriented community. The survey identified the fast foods industry as having the best employment opportunities. An advisory committee helped develop the curriculum for the program based on the skills the job required. By June 1983, 78 percent of these students were employed in the community. Of these students, 57 percent held paid positions other than dishwashing, which historically has been a common placement for these students.

Disadvantaged monies were used to support the development of an agriculture program in a high school located on an Indian reservation. One of the program objectives was to provide incentive and skills to improve agricultural productivity on the reservation. Twenty-four Native American high school students participated in the program. An FFA chapter was organized which provided the students the opportunity to develop leadership skills and participate in local and regional FFA activities. The program is being expanded into the second and third year of the curriculum to accommodate students and community needs.

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